



# Northumbrian Water Group

Deliberative research into complex  
bill drivers for 2025-30

**Research report** December 2022

# Executive summary

## Project background

As part of their PR24 planning, Northumbrian Water Group (NWG) had several complex topics that they wished to understand customers' views on. All topics had a link to long-term planning and the key drivers underpinning potential bill increases. Because of their complexity, it was necessary to conduct in-depth, deliberative consultation on each topic.

The topics discussed were:

1. NWG's approach to investing in asset health
2. The importance of public value in NWG's infrastructure
3. Customer opinions on several statutory obligations, specifically
  - a. Investment in the wastewater system to reduce the use of Storm Overflows
  - b. Investment in wastewater treatment processes to remove nitrogen for the benefit of the environment
  - c. Investment to reduce leakage from the water network
  - d. Investment to secure water supplies in Suffolk
4. The acceptability of compulsory metering
5. Relating to the various issues that may drive an increase in customer bills, bill profiles and preferences for how any bill increase would be applied from 2025 to 2030, were discussed.

## Research Aim and Objectives

The over-arching aim of the research was to gain an understanding of customers' views in relation to the topics outline above.

Please note, some of these topics were discussed solely with customers of either Northumbrian Water or Essex & Suffolk Water. Others were discussed with both groups. Topics were presented to customers that were relevant to the services they receive and decisions they could influence.

The table overleaf summarises the specific research objectives for each topic, along with a summary of which customer group was involved in what conversation.

Topic discussed	Objective of discussion	Customer group involved in discussion
<b>Investment in wastewater treatment processes to remove nitrogen for the benefit of the environment</b>	To understand whether customers supported engineered or catchment-based solutions to reducing nitrate levels and whether they thought NWG should challenge Defra on its proposed statutory obligation	Northumbrian Water customers
<b>Investment in the wastewater system to reduce the use of Storm Overflows</b>	To understand preferences for engineered or nature-based solutions to reduce the use of storm overflows, taking into account the time frames of employing both solutions. Consequently, whether NWG should challenge regulatory targets to enable the use of more nature-based solutions	Northumbrian Water customers
<b>Investment to reduce leakage from the water network</b>	To understand whether customers support ESW in challenging the regulator in their decision for all water companies to reduce leakage by 50%, in the light of ESW's industry leading position. Or whether customers believed that this statutory obligation should be challenged.	Essex & Suffolk Water customers
<b>The acceptability of compulsory metering</b>	To understand the level of support for the introduction of compulsory metering to encourage water efficiency, as well as understanding opinions on the value of smart metering.	Essex & Suffolk Water customers
<b>Investment to secure water supplies in Suffolk</b>	To understand preferences around how to tackle the forecasted water shortage in Suffolk enabling the moratorium around new connections to be lifted. Two options were presented, a new reservoir and a water effluent plant. Thoughts on both were understood.	Essex & Suffolk Water customers
<b>NWG's approach to investing in asset health</b>	To understand customer opinions regarding NWG's approach to investing in asset health and how this linked to both concepts of intergenerational fairness and bill affordability.	Essex & Suffolk Water customers AND Northumbrian Water customers
<b>The importance of public value in NWG's infrastructure</b>	The extent to which customers valued NWG considering public value when making investments to their infrastructure in general, and with regard to the provision of designated bathing waters specifically.	Essex & Suffolk Water customers AND Northumbrian Water customers
<b>Bill profiles and preferences for how any bill increase would be applied from 2025 to 2030</b>	To understand customers' preferences for how (i.e. steady or unsteady) any bill increase would be applied from 2025 to 2030.	Essex & Suffolk Water customers AND Northumbrian Water customers

## Methodology

A multi-strand qualitative approach to the methodology was taken to seek to achieve the objectives of the research, consisting of the following:

- People Panel (PP) online round with Employee, Northumbrian, Essex, Suffolk, and Young groups, respectively (October 2022). Please note, a report for this session has been published on the NWG website [here](#) and is also available in Appendix E of this report.
- Deliberative online workshops with Northumbrian Water (NW) and Essex & Suffolk Water (ESW) household customers (October/November 2022)
- Face-to-face (F2F) focus groups in North (Deckham) and Essex (Barking) regions (November 2022)
- A deliberative online workshop with Suffolk People Panel (December 2022)

## Participation within this research

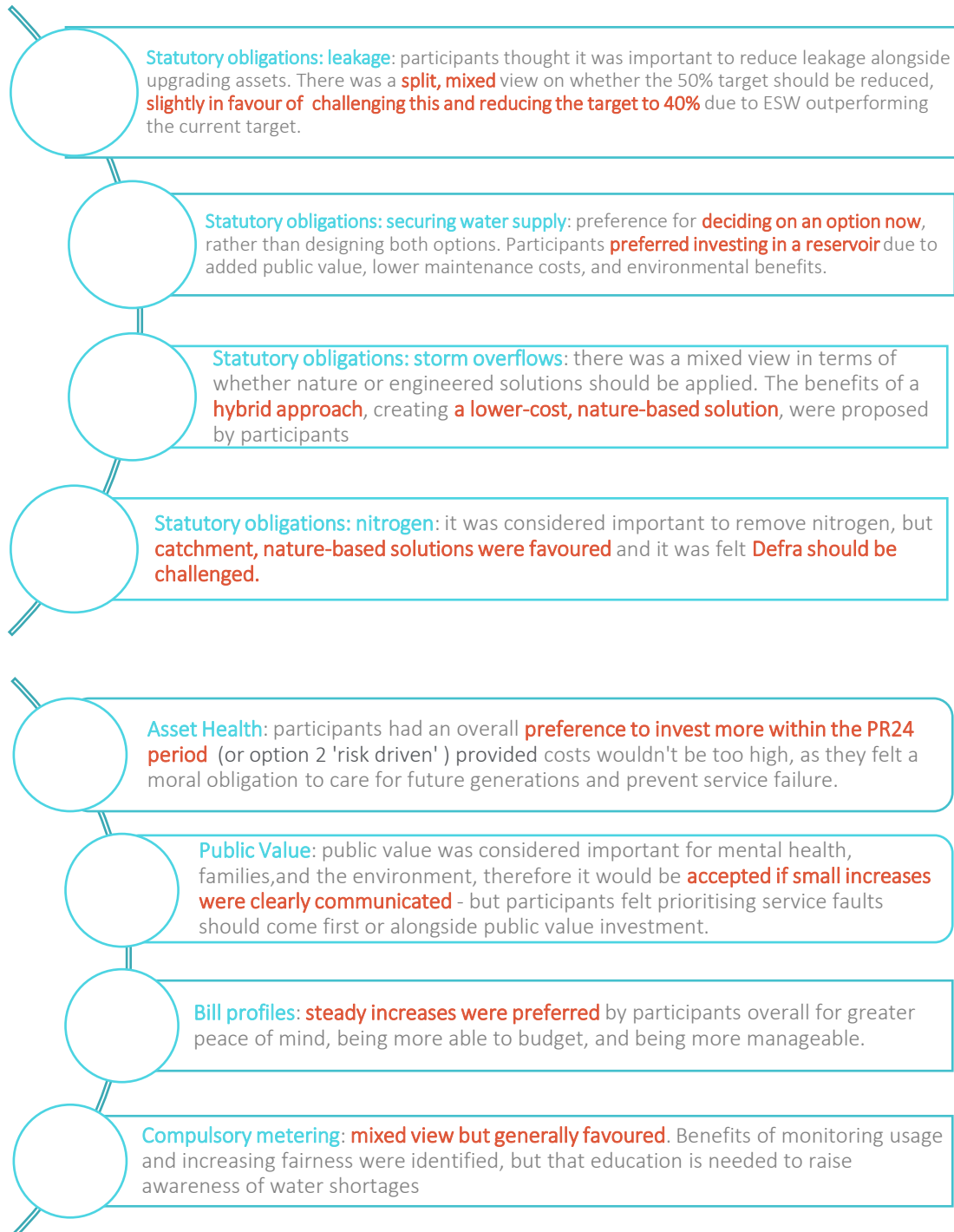
The following table summarises the overall participation in this research by area.

Region	Total number of attendees
North	37
Essex	37
Suffolk	29
Other*	13
	116

*\*Please note that the 'other' group, comprises five NWG employee panellists and eight young panellists for whom, due to the nature of the People Panel group, their region is unable to be determined and incorporated into regional results.*

## Summary of findings

For each of the topics discussed, participants highlighted the following, in particular:



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# Introduction

## Project background

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The topics discussed were:

1. NWG's approach to investing in asset health
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5. Relating to the various issues that may drive an increase in customer bills, bill profiles and preferences for how any bill increase would be applied from 2025 to 2030, were discussed.

## Research Aim and Objectives

The over-arching aim of the research was to gain an understanding of customers' views in relation to the topics.

Please note, some of these topics were discussed solely with customers of either Northumbrian Water or Essex & Suffolk Water. Others were discussed with both groups. Topics were presented to customers that were relevant to the services they receive and decisions they could influence.

The table overleaf summarises the specific research objectives for each topic, along with a summary of which customer group was involved in what conversation.

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## Methodology

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- Deliberative online workshops with NWG customers served by Northumbrian Water (NW) in the North, and those served by Essex & Suffolk Water (ESW) in the Essex and Suffolk regions (October/November 2022)
- Face-to-face (F2F) focus groups in North (Deckham) and Essex (Barking) regions (November 2022)
- A deliberative online workshop with Suffolk People Panel (December 2022)

As a thank you for attending each session, participants of the online deliberative workshops received £60 for each of the two sessions (totalling £120 per participant). Participants attending the face-to-face groups received a £100 cash incentive for their participation in a day long session, which included a lunch break and refreshments throughout the day.

Explain worked closely alongside NWG throughout the series of research groups to ensure materials were clear and accurate. To enable the provision of accurate information, on behalf of the company, and any clarification questions from attendees could be responded to, the majority of workshops and focus groups were attended by at least one of the following NWG representatives:

- Strategic Customer Research & Engagement Manager,
- Customer Research Manager,
- Wastewater Strategic Planning Manager,
- Optimisation Manager,
- Head of Asset Intelligence,
- Wastewater Technical Policy Advisor,
- Water Resources Team Leader,
- Water Supply & Demand Planning Team Leader,
- Water Resources & Supply Strategy Manager.

## Summary of workshop structure and attendance

### Notes on attendance

#### Suffolk representation in the research

Alongside the face-to-face sessions in the North and Essex, a face-to-face session was also held in Stowmarket, Suffolk. In total, 11 people attended this session and all were asked to confirm whether they were customers of Essex & Suffolk Water during their eligibility screening. Despite this, during the session, it became apparent that there was some confusion regarding water suppliers, and following the event NWG verified, using its customer data, that some participants were not Essex & Suffolk Water customers and instead received their water services from Anglian Water. Due to the interactive nature of the groups, it is not possible to say whether the views of Essex & Suffolk Water customers were influenced by the views of Anglian Water customers. For this reason, the findings of the Stowmarket group are not included in this report. Explain have provided a separate report that highlights any key similarities and differences between the views of the Stowmarket group and others.

In order to ensure representation from the Suffolk region, an additional workshop was held with members of the Suffolk People Panel on 8 December 2022. 11 participants attended.

#### The requirement for an additional online workshop.

Recruitment for the online workshops with Essex, Suffolk and North customers was managed by a trusted third-party panel provider and all sessions were overrecruited to mitigate the risk of poor turnout. However, each group experienced a lower-than-expected turnout for the first online workshop. A 'top up' session was arranged to increase attendee numbers and ensure a sufficient number of customers were engaged in the research. These additional participants were recruited via a database, provided by NWG, with details of customers who had previously expressed an interest in taking part in research.

## Overall Attendance within this research

The following table summarises the participation in this research by area and type of research group, including numbers of customers attending the ‘top up’ online workshops. Numbers of people attending the F2F sessions in Stowmarket have been excluded.

Region	Total number of attendees	Breakdown of attendees
North	37	16 online (inc. top up) 8 F2F 13 PP
Essex	37	19 online (inc. top up) 7 F2F 11 PP
Suffolk	29	8 online (inc. top up) 11 replacement 10 PP
Other	13	5 employee panellists 8 young panellists
	<b>116</b>	

*\*Please note, the People Panels are regular, monthly online panels, conducted with customers, future customers and employees of Northumbrian Water and Essex & Suffolk Water.*

*\*Please note that the ‘other’ group, comprises five NWG employee panellists and eight young panellists for whom, due to the nature of the People Panel group, their region is unable to be determined and incorporated into regional results.*

## Summary of the content and attendance at each workshop

In order to keep the duration of the workshops to a maximum of two hours per session, the topics covered within each workshop were divided over two sessions. The content of these sessions and the number of attendees within each group is shown in the table below.

Name and date of session	Topics covered	Total no. of attendees
<b>Deliberative workshop 1: North</b> 18 October 2022	Asset Health; Public value	8
<b>Deliberative workshop 2: North</b> 15 November 2022	Statutory Obligations Storm overflow and Nitrogen; Bill profiles	7
<b>Face-to-face: North (Dunston)</b> 16 November 2022	Asset Health; Public value; Bill profiles	8
<b>Deliberative workshop 1: Essex</b> 20 October 2022	Asset Health; Public value	13
<b>Deliberative workshop 2: Essex</b> 22 November 2022	Statutory Obligations Leakage; Statutory Obligations Water Supply; Bill profiles; Compulsory metering	11
<b>Face-to-face: Essex (Barking)</b> 24 November 2022	Statutory Obligations Leakage; Statutory Obligations Water Supply; Bill profiles; Compulsory metering	7
<b>Deliberative workshop 'top up' (North &amp; Essex)</b> 8 November 2022	Asset Health; Public value	14 (8 NW, 6 Essex)
<b>Deliberative workshop 1: Suffolk</b> 25 October 2022	Asset Health; Public value	8
<b>Deliberative workshop 2: Suffolk</b> 1 December 2022	Statutory Obligations Leakage; Statutory Obligations Water Supply; Bill profiles; Compulsory metering	6
<b>Additional PP Suffolk:</b> 8 December 2022	Statutory Obligations Leakage; Statutory Obligations Water Supply; Bill profiles; Compulsory metering	11
<b>People Panels (all groups)</b>	Asset Health; Public value	47

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explain

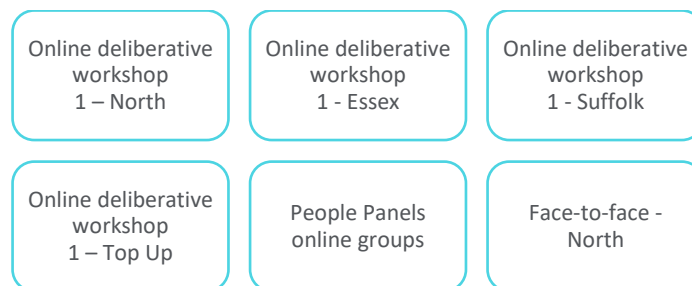
**“The goal is to transform  
data into information,  
and information into  
insight”**

**Results of ‘Approach to  
investigating Asset Health’**

In-depth findings of ‘Approach to investigating Asset Health’.

# Results of ‘Approach to investigating Asset Health’

This section of the report concerns the findings from the research conducted on the topic of asset health, which was discussed in the following groups:



The sessions began by discussing the ways in which participants maintain their assets, as well as the factors that influence these decisions. For instance, participants were asked to reflect on how they maintain their car as an example. The meaning of ‘assets’ and ‘asset health’, for NWG, was then explained to participants, in the context of an ageing infrastructure and the consequent potential for increased risk to service failures in the future. Participants were then presented with two potential options for the PR24 period with regard to asset health: (1) a cost driven approach to the maintenance and replacement of NWG’s assets; or (2) a risk driven approach. How each approach was summarised is shown in the table below.

Option 1: Cost driven	Option 2: Risk driven
Keeps bills lower from 2025 to 2030 helping with affordability	Increases customer bills
Increased risk of service failure	The risk of service failure is stable
Bills may be higher in the future, as the problem is “kicked down the road” and is paid for by future generations	The problem is dealt with and paid for now, also protecting future generations

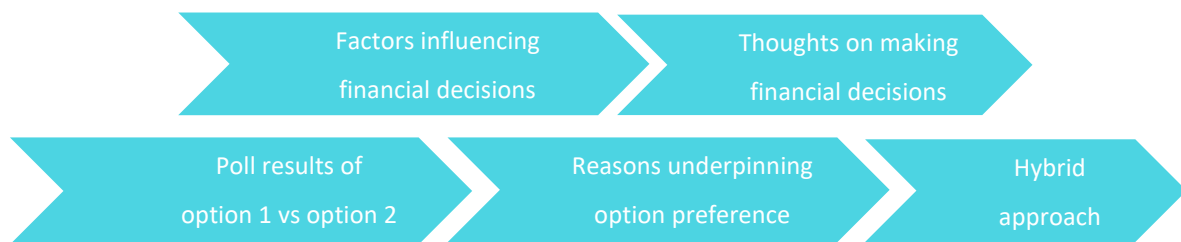
Participants were then asked to discuss the benefits of each option, and what their preference would be. Finally, participants were asked to vote on their preference.

The overarching findings are summarised in the box below.

**In terms of their approach to maintenance or replacement of their own assets COVID-19, the cost-of-living, and having children were the main factors influencing financial decisions. All had caused participants to cut back on spending and save where possible. Participants take steps to maintain and repair items but take a cost-benefit analysis approach to decide whether to replace an item.**

**In terms of the approach that NWG should take towards the maintenance / repair of assets, there was an overall preference for in both regions for the risk-driven approach (option 2). Underpinning this was a sense of the importance of a reliable water (or water and wastewater service) and the need to ensure this for future generations.**

The detailed findings of the discussions regarding asset health are now discussed and are organised in the following manner.



## Factors influencing financial decisions

The three themes drawn out from discussions about factors influencing financial decision-making centred on:

1. Familial choices such as having children,
2. The cost-of-living crisis, and
3. The COVID-19 pandemic.

Participants generally referred to their personal financial situation being determined by their familial situation as, once they had started a family, they needed to ensure their children's safety and education were put first.

□ *"I would go back to the car analogy again, for me, before I had children, I would have said 'drive it till it falls to pieces and then replace it', but now I've got a family and I've potentially got my child in the car with me when it keels over. Having had a car that did die like that on the [Road*



*name], before I had the kids, I wouldn't want to go through that with a child in the car. So, reliability is more of a thing for me now" – NWG Employee People Panel*

- "We had a young family and there are far more demands on the family budget then, than there is now that the fledglings have flown the nest" – Northumbrian People Panel*
- "I've recently started putting aside some money, creating a budget for education for my son... I realised that there is no better time than now to start doing it because my son is now four years old... I have to try to minimise where I can, in the areas where I can" – Essex People Panel*
- "The biggest financial change in my life was when we had to start a family, all of a sudden when number one baby came along, we had to rein in a little bit, and then baby two, even more, and the expense kept growing really as they grew older" – Online workshop 1 (Essex)*

Participants in the face-to-face group in Dunston felt that the combination of the impact of the COVID – 19 pandemic and the cost-of-living crisis had impacted the way people approached financial decisions. In particular, they discussed altered shopping habits, for example using budget stores or Facebook marketplace.

- "Years ago, if I'd seen something on Facebook [marketplace] and I liked it, it's free, they're giving it away, I would feel embarrassed at taking it" – Face-to-face (Dunston, North)*
- "All the cheap things, the out-of-date stuff in the corner... They put a Pound Land in the city centre and all the people in the area were protesting outside and saying... it makes the town look a bit tatty. It showed you about five years later and the majority of people that were protesting actually shop in the shop now" – Face-to-face (Dunston, North)*
- "I would never have shopped at Aldi years ago, and I do now" – Face-to-face (Dunston, North)*
- "Your job situation, what sort of job you're in. A lot of people are losing their jobs. The cost of living, so people have got to change" – Face-to-face (Dunston, North)*
- "Because of COVID, everybody's suffered... they're sort of finding their feet... getting back into a normal pattern, then the cost of living goes up" – Face-to-face (Dunston, North)*
- "It's since COVID, because people have lost their jobs and they don't have the income or... their hours have been cut, so people are more cautious. The prices, every time you go shopping, it's a joke" – Face-to-face (Dunston, North)*

## Thoughts on making financial decisions



Participants stated that they try to use a product for as long as possible before replacing items, due to being unable to justify buying new products before it is necessary.

- *“I will try my best to utilise a product for as long as possible... I’ll have the servicing only if it is really necessary... by law you are required to do those checks. Sometimes you cannot because your financial situation does not allow you to do those checks. I will stretch the period for as long as possible until the product completely dies. I have a car which is quite old but I’m still using it because I cannot afford to buy a new car” – Essex People Panel*
- *“Perhaps when you’re thinking about sustainability. That if maintaining it and keeping it as is as much as possible is an option, why not do that over completely getting something else in and wasting that other product?” – Young People Panel*
- *“We keep repairing them as long as we can, so we hold on to them as long as we can” – Online workshop 1 (Suffolk)*
- *“[I] leave it until the last minute, until it dies on me, then I’ll change it” – Face-to-face (Dunston, North)*
- *“I keep going with everything until it breaks” – Face-to-face (Dunston, North)*
- *“You try and get it repaired because it’s cheaper than new” – Face-to-face (Dunston, North)*

Several participants referenced the current cost-of-living crisis as a reason for making products last as long as possible, or sourcing alternative, more cost-effective products.

- *“I just had to trade-in a car because it was becoming too costly to run.... I’ve got a fridge that’s on its last legs and I’m going to keep on running it until it packs up because I can’t afford to buy the new one” – Essex People Panel*
- *“Making it last as long as you can... with where money is nowadays” – Online workshop 1 (North)*
- *“I think in the current climate that [the life of the asset] is probably something people are willing to risk a bit more” – Online workshop 1 (Suffolk)*
- *“Especially [in] the last few months, things have become a lot tighter for everybody haven’t they? So, everybody is trying to get the most out of what they can” – Online workshop 1 (Suffolk)*
- *“With the cost of living, it’s making people keep things longer” – Face-to-face (Dunston, North)*
- *“Since this crisis has all come out, I’ve now bought myself a [washing] line, one of the folding in and out ones so I’m using that just to try and save on electricity” – NWG Employee People Panel*

Several participants felt they would spend money to take steps to maintain essential products and services, such as a boiler for hot water and heating. For instance, through servicing their boiler, to improve the reliability of those products and services.

- *“Having reassurance that services are reliable... you wouldn’t want to sacrifice your essential service” – NWG Employee People Panel*
- *“Yesterday, I had my new gas boiler serviced. It was only installed brand new last year. So, that’s an asset that is in my home to give me hot water and heating. Without that service check, it’s preventing a problem occurring, isn’t it? That’s the idea of it” – Essex People Panel*
- *“You’d get [the boiler] serviced obviously annually, so you know that after about 10-12 years the boiler needs to be replaced anyway” - Online workshop 1 (Essex)*
- *“With bigger purchases, we have things like boiler surfaces. I think you make more of an effort to maintain things like that, like we had to have a new one fitted and that was nearly £4000. It’s a lot of money if you haven’t budgeted it. So, I tend to give more priority to things that are going to be more of a hole in the pocket if they go wrong” - Online workshop 1 (Suffolk)*

Many participants felt they tended to budget and put money aside where possible, to prepare for future uncertainties. The participants highlighting this often referred to their income fluctuating or being low due to personal circumstances such as being retired, a pensioner, being made redundant, or having commission-based jobs.

- *“Personally, the age I’m at, I tend to put money away for a rainy day, over a long period of time. So, when something happens, for example the roof needs fixing, I can then dip into that and get that work done” – Northumbrian People Panel*
- *“It’s listing priorities as well. Look at your priorities and perhaps make a list of pros and cons. Is it worthwhile spending it now or saving it for a rainy day? These things, they just come along, you just don’t know” – Northumbrian People Panel*
- *“It’s the uncertainty, isn’t it? You’re really not quite sure what’s next around the corner... we’ll just stick a little bit extra away, just in case” – Northumbrian People Panel*
- *“I’m a pensioner, so my income is fixed. So, in terms of budgeting, I can do that long-term, because I know what I’m going to have in my hands” – Online workshop 1 (Essex)*
- *“My husband is in a commission-based job, so he earns minimum wage for the hours he does, and then some months he’ll pretty much sell nothing and we’ll end up with a really, really skint*

*month... if we do get a good month, what can we prioritise? What do we need most? And then we'll buy, or spend, or save if we can" – Online workshop 1 (Essex)*

- "I was made redundant in the pandemic and that had a huge consequence on how we managed our finances... instead of having a fixed monthly income come in I had a redundancy package which buoyed me up for a certain amount of time which was given" – Online workshop 1 (Suffolk)*
- "There was the whole uncertainty around COVID and the industry I worked in there was massive uncertainty and not many jobs available, and so it just meant an immediate reigning in. Everything had to change" – Online workshop 1 (Suffolk)*
- "My husband became very ill in 2016... he just stopped working so our income just disappeared... we stopped having newspapers, no subscriptions to anything, [thinking] what do you need [and] what don't you need, you know?" – Online workshop 1 (Suffolk)*

A few participants stated they would take expert advice into account when making financial decisions, with their advice on costs of repairs, trading or buying a new product.

- "You need to take into account any kind of expert advice... 'if you repair it, it will last X number of years', so it's weighing that up but getting advice as well because as a layperson, I really don't know much about cars at all" – Online workshop 1 (Essex)*
- "We'd wait for the mechanic to say to us that it's going to cost you too much to repair and that's where we then trade in and get a new one" – Online workshop 1 (Suffolk)*

For some participants, financial decisions were made in a reactive manner, which affected their budgeting. These participants felt that it was not possible to fully plan for all financial eventualities and would only be prompted to buy new items if it was deemed an essential item, such as a boiler for heating.

- "It's a reactionary thing, isn't it? I think very few people think about buying a boiler before it's actually broken down" – Online workshop 1 (Essex)*
- "I don't think proactively in that way. It's kind of reacting to it's starting to not work as it should" – Online workshop 1 (Essex)*
- "My boiler needs servicing every year, but I can't afford to get it serviced. It's incredible what they're charging" – Face-to-face (Dunston, North)*

A small number of participants stated they appreciated value for money when buying new products, therefore would prefer spending more money to get better quality.

- *“All of our kitchen appliances broke at once, so we just put in quite a bit of money to just redo them all... we did pay out more and get better brands because it was something that we were going to use every day and we thought, it’s not worth cheapening out on it for things that you’re going to use all the time” - Online workshop 1 (Suffolk)*
- *“I’m all for buying gold first off... and not wondering about the gram book. Get your money’s worth out of it” – Online workshop 1 (North)*

The emotional impact of worrying about not being able to afford a replacement product was discussed by some participants, as well as the worry of having to seek alternate financial options.

- *“[If] I am using a product that is at the end of its life, I’m constantly thinking there is that very real risk of that product actually failing at any time. So, there’s an emotional impact, having that stress thinking, ‘if that happens, do I actually have the money to replace it?’, which I don’t at the moment” – Essex People Panel*
- *“I’ve just had to replace my laptop which I’ve had for about six years and my daughter had said to me, if you don’t replace it now, you’re going to turn it on one day and it’s just not going to work... it’s going to give way but it’s just finding the right time to do it” – Online workshop 1 (Suffolk)*
- *“If something breaks for me, I couldn’t buy a new washer, I’d have to get it on finance at Curry’s. I couldn’t afford £600, £700 for a [television] or a washer, I just haven’t got it, so it would be finance over two or three years or whatever” – Face-to-face (Dunston, North)*

One participant, an NWG Employee panellist, stated they had changed their behaviours to try and be more energy efficient not from a cost saving perspective, but from an environmental perspective. However, it is important to note, that the correlation between cost efficiency and environmental benefits was not mentioned by any other participants.

- *“We’ve done quite a few things over the last couple of years to try and be more energy efficient from an environmental perspective as opposed to a cost saving perspective, so we’ve always dried the clothes outside... We haven’t really changed any behaviours lately and I’m sort of seeing what happens with our bill... if that’s kind of enough to just keep it, more or less, where we’ve*

*always run our bills... But a lot of the drive for us [is] being energy efficient and harnessing wind outside and sunshine which is free” – NWG Employee People Panel*

Overall, participants generally agreed that they weigh up the advantages and disadvantages by doing a cost-benefit analysis of the value in continuing to repair a product, or the value in buying a new version of that product rather than repairing.

- *“It's more of a numbers game, for example, what percentage of the original costs are you paying to maintain set asset? And then at what point does it become a larger percentage that isn't comfortable” – Online workshop 1 (North)*
- *“A phone, for example, how much is it going to cost me to get the screen fixed instead of just getting a new one.... Weighing up the pros and cons and using that to come to a decision” – Young People Panel*
- *“I'd also do a cost benefit analysis sort of assessment.... I'd think is it really worth it? What am I getting out of it?” – Young People Panel*
- *“It's the cost of the repair and what the life after the repairs is, so if it's going to be £500 this year and another £500, then it's only £1000, then you might as well just spend the £1000 to have a longer life. It depends on that” - Online workshop 1 (Essex)*
- *“It depends firstly on what the thing is and how essential it is to my daily life or my working life. So, for example, the car, I set a budget on that, do I need it or not? First of all, I do need a car to get to my work... So, then I set a value, a budget, and what I can afford for that vehicle, so we'll say it's £2000 a year, it has to cost me over £1000 per year, whatever it is, and I've worked that budget. But if the thing is seriously essential, like the water, the water supply, then the budget goes up considerably” – Online workshop 1 (North)*
- *“If the thing is a necessity, then you obviously try to find the value to keep it going. If it's not a necessity, then you don't” - Online workshop 1 (Essex)*
- *“If it's a car that you would need to go to work, you would make sure it was maintained. If it was something luxury, like holiday, you'd go without it” - Online workshop 1 (Essex)*
- *“There comes a point when the repairs are more expensive than the actual replacement with a car.... It [could be] cheaper to get a new car in the long run” - Online workshop 1 (Essex)*
- *“There must come a point where it definitely becomes far more expensive to keep patching than it does to replace and then its ongoing care is much, much cheaper” - Online workshop 1 (Essex)*

- *“If it's £200 to repair... just repair the boiler for £200. But if it keeps on going wrong, and its lots of £200, then you are best off buying a new boiler” - Online workshop 1 (Essex)*
- *“There's a point where it's not worth throwing any more money at something to repair it and you need to replace it” - Online workshop 1 (Suffolk)*
- *“Like [name] said, about the cost and effectiveness and weigh up what is going to cost me more. Is it going to cost me more to maintain the car, or is it better in the long run to do new? It's the same with every item” - Online workshop 1 (Suffolk)*

## Poll results of option 1 vs option 2

Participants were asked which of two options for asset management they would prefer. The options are outlined below:

1. **Option 1: Cost driven approach to asset management** – where costs would only rise the smallest amount possible. This comes with an increased risk of service failure as assets wouldn't be maintained, and there is the risk that bills may be higher in future
2. **Option 2: Risk driven approach to asset management**– where costs would increase for customers. This money would be used to maintain and repair assets, therefore reducing risk of service failure in future.

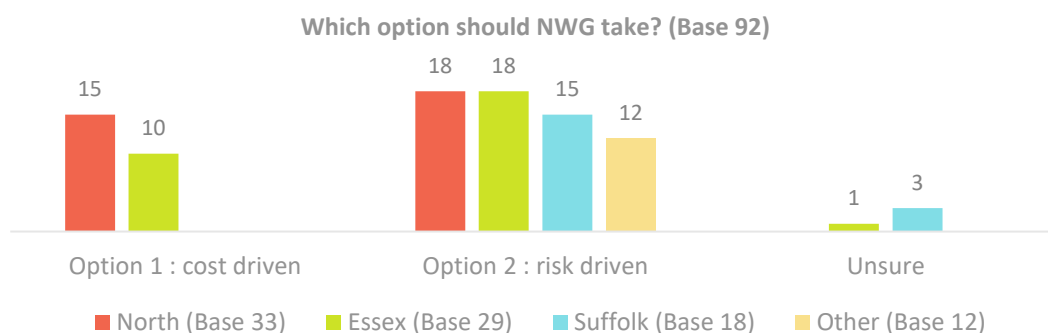
The table and chart below shows the results of the poll which asked participants whether they would prefer Northumbrian Water / Essex & Suffolk Water to take option 1, option 2 or if they were unsure. The results presented have been split into regions of North, Essex, and Suffolk, respectively. The regional results therefore include all poll votes from participants of the People Panel, first deliberative online workshop, and top up session.

<b>Option choices (Base 92)</b>	<b>Total preference</b>	<b>North (Base 33)</b>	<b>Essex (Base 29)</b>	<b>Suffolk (Base 18)</b>	<b>*Other (Base 12)</b>
<b>Option 1: Cost driven</b>	25 (27%)	15 (45%)	10 (34%)	0	0
<b>Option 2: Risk driven</b>	63 (68%)	18 (55%)	18 (62%)	15 (83%)	12 (100%)
<b>Unsure</b>	4 (4%)	0	1 (3%)	3 (17%)	0

*\*Please note that the 'other' group, of 12 participants, comprises five NWG employee panellists and seven young panellists for whom, due to the nature of the People Panel group, their region is unable to be determined and incorporated into regional results.*

Across all groups and 92 responses, 'option 2: risk driven' was the most selected and preferred response by 63 participants (68%). Whilst 'option 1: cost driven' was preferred by 25 respondents (27%), and a small number of 4 participants were 'unsure' (9%).

Those participants in the North and Essex regions were the regions which had more split decisions between the two options, whilst participants from the Suffolk region preferred 'option 2: risk driven'.



## Reasons underpinning option preference

### Option 1: cost driven (25 of 92 participants preferred – 27%)

Benefits of the cost driven option one centred around the uncertainties of the future, and the desire to be cautious about spending money before it is necessary, particularly due to the cost-of-living crisis and current financial struggles being faced by the population.

- *“Taking more of an approach to concern about costs and the general uncertainties and that things will potentially get worse, before they get better, but also thinking, why fix things that aren’t yet broken? You usually get longer from them than you think, so don’t spend money too far in advance” – Northumbrian People Panel*
- *“I’ll go with square Option 1. If the increase in bills will be in five years or less and my financial circumstances don’t change then, I simply can’t pay more... Is it absolutely necessary to do those investments now for the whole of the infrastructure?” – Essex People Panel*
- *“Option one at the moment is the one that most people will go for with what’s going on financially. Probably two is the better in the long run, but I think at the moment option one is probably the best scenario” – Online workshop 1 (Essex)*
- *“People are struggling with what they’re having to pay for at the moment with their bills, but nobody wants anything to increase, so I think that’s just something that people have got to think about, well what literally can I afford?” – Online workshop 1 (Essex)*
- *“People are struggling enough as it is at the moment... Water is so essential and that’s really going to put pressure on people” – Online workshop 1 (Essex)*
- *“I’d go with option one because I think the bills just always get paid forward, like the lady said five minutes ago, about the previous generation, it’s what we know” – Online workshop 1 (Essex)*
- *“You’re protecting the poorest and vulnerable. Unless they ringfenced the bills going up, I am certain that’s always an important thing” – Online workshop 1 (Suffolk)*
- *“Option One, to save money” – Face-to-face (Barking, Essex)*

Some participants felt that they needed further information to decide, due to current economic climate as they would need to have a better understanding of whether they could afford to pay a much greater rise in bills.



- *“Without knowing the money you're talking about; I would have to go with option one. If you could give me a figure of how much it was going to be, I might change my mind, but I can't speculate on spending money [when] I don't know how much it's going to be” – Online workshop 1 (Essex)*
- *“Like X said, without knowing what the difference is in the cost of the two options, I would have to say option one in the current climate, because option two increasing bills, it could be horrendous for some people” – Online workshop 1 (Essex)*
- *“I just think short-term. Things change, like the war in Russia, if things start coming down, like you say here have it long-term, but I think short-term at the moment. I think everybody's got to think about high risk; it's people's lives at the end of the day. Even with gas and electricity companies, some of the stuff going on is absolutely ridiculous” – Face-to-face (Dunston, North)*
- *“I cannot decide because probably I need more information. There are so many factors that we need to consider... if you're [paying] £40 a month and if you have to pay £41, so just increase of £1 a month, [I'd] probably say that's fine. But if it's going to change to £60 for example, or £55 you may say that's too much” – Face-to-face (Barking, Essex)*

An acknowledged disadvantage of the cost driven option 1 was the idea that the same task may be more expensive to do in the long run, due to increases in costs of materials and inflation.

- *“One of my issues with cost is, if you put it off for a few years, you find out that materials and various things cost a lot more than they did a few years ago. So, to do the job in five years' time might cost you 10% more than it would have done if you just did it in the first place, so you'd have been better off doing it in the first place” – Northumbrian People Panel*
- *“With option one, I feel like there's a bigger risk that the bills would be low... but if something does happen to the sewer systems or assets, there could be a drastic increase in the bills, which is more difficult to handle [as] a big jump in comparison to steady increases” – Young People Panel*
- *“Rather than pay something a little bit extra and replace them with a quality part so it's going to last longer, they just replace it with cheap stuff... and it's costing them more money in the long run” - Suffolk People Panel*

Most participants reasoned they wouldn't like 'option one: cost driven' to be taken as they felt that it would be unfair for future generations, as it essentially pushes the problem down to the next generation and makes no repairs on the system.

- *“No, because obviously if these assets are 100 years old, they’re going to break and they’re going to be footing the bill. It’s not fair” – Online workshop 1 (Suffolk)*
- *“It’s probably not fair on the future generation... A lot of people have got kids and they want to protect their children in the future, that’s normal” – Online workshop 1 (Suffolk)*
- *“If you keep the bills low it’s going to be our kids that will have to pay the price for the repairs” – Face-to-face (Dunston, North)*
- *“I don’t like that... we’re kicking down the problem to the next generation, I think it’s time our generation starts sucking up some of its problems and just dealing with it instead of passing it on” – Face-to-face (Barking, Essex)*

One participant preferred option one as they felt there was already a low risk of having problems with their water supply and was happy with the water supply as it currently is.

- *“I’ve never had a problem with the water and nobody else has really, when they went in and turned the tap on there’s water coming out” – Face-to-face (Dunston, North)*

### Option 2: risk driven (63 of 92 participants preferred – 68%)

Most panellists highlighted that their preference in option two lay in their willingness to accept a cost increase now in the hope that it will prevent costs and problems escalating in future years.

- *“Prevention is better than cure. Let’s take the cost now because in five years’ time, whenever the timespan is, costs are going to escalate. So, the sooner things are done, the better it will be. That’s my outlook on anything like this” – Essex People Panel*
- *“There’s an old saying... ‘a penny spent today will save a shilling tomorrow’” – Essex People Panel*
- *“It would be wiser to go for the risk option.... it would be better to be safe than sorry rather than, when there is a problem you say, ‘Oh, everyone, do you have this amount?’” – Essex People Panel*
- *“It seems like having to pay higher bills would become inevitable... it would just be later on, so... it makes more sense to just pay more now, then you’re getting your money’s worth with a better service” – Young People Panel*
- *“I would rather spend that money now, just to make sure that there aren’t any problems after” – Young People Panel*

- *“Option two because, if something did happen to the sewage system then it’s more important to get that sorted first rather than any other problem... paying more for a better-quality service will give you better options in the future. So, you’ve got the reliability there” – Young People Panel*
- *“We have to deal with it now. Yeah, in an ideal world, you don’t want the costs to go up, but you’ve got to be realistic about it” – Online workshop 1 (North)*
- *“A lot of us have become much more aware that kicking the can down the road... doesn’t always work out to everyone’s favour and actually does come back to bite you” – Online workshop 1 (North)*
- *“I don’t know how much it’s going to cost us in two- or three-years’ time, probably more expensive, so you might as well just get on with it now” - Online workshop 1 (Essex)*
- *“It’s more proactive... they’re getting to the problem before you’ve got the problem and if you’re fixing things sooner, you’ll maybe not have to spend as much money in the long run, whereas if you leave it, you might end up spending more” - Online workshop 1 (Suffolk)*
- *“It protects future generations [from costs and service failure]” - Online workshop 1 (Suffolk)*
- *“If it was delayed, you might end up outlaying more money in the long run and having to do more work... than if you’d have been a bit more proactive” - Online workshop 1 (Suffolk)*
- *“I would say about money and future generations, and also to kind of stop further damage so things will cost more... it’s best to get these problems sorted out now before they get worse and become more expensive to fix” - Online workshop 1 (Suffolk)*
- *“Protects our future generations from even more increases and delays obviously any further issues that could, that could happen, or worsen” - Online workshop 1 (Suffolk)*
- *“Water is the cheapest commodity we have, and we ought to value it and make sure that it is available for every future generation” - Online workshop 1 (Suffolk)*
- *“We’ve talked about costs of repairs versus cost of maintaining infrastructure probably being increased, but potential disruption from things that break could potentially be more damaging than actual disruption due to repair or replacement. So, it being detrimental on a cost front and probably impacts to our everyday lives” - Online workshop 1 (Suffolk)*
- *“I would say it probably is better to increase the bills a little bit just so that the future generations don’t have that problem” – Face-to-face (Dunston, North)*
- *“It’s going to cost more, isn’t it, if we don’t do it now” – Face-to-face (Dunston, North)*

Importantly, participants that stated a preference for option two did so with the caveat that increased costs should not be too high, referencing the cost-of-living crisis.

- *“[My water bill costs] about £58 a month... so an extra £10 is not too bad, but if it was sort of another £30 or £40 a month, it'd be a bit tough” – Online workshop 1 (Essex)*
- *“Option two. It's hard to say... until you know what the costs will be” – Online workshop 1 (Suffolk)*
- *“Probably the second one, but it doesn't say how much they think that's going to raise by which I don't think that's a huge problem. I would do it but a little bit of notice to be able to budget that in and I think that would be fine, but I'd like to know” – Online workshop 1 (Suffolk)*
- *“I don't mind paying a little bit more, it's when it goes up huge” – Face-to-face (Dunston, North)*
- *“if it increases like that which is a small amount then, yes, Option Two. But it depends, you know? If it's going to go up a lot” – Face-to-face (Barking, Essex)*
- *“What is the cost of the investment that's going to allow us to take option two? Is it too significant a cost for us, that would cause us to be driven to take costs option one? ... We need to be clear about how much is it going to cost this generation?” – Online workshop 1 (North)*
- *“I think the risk one probably is best overall... we might have to push it back to next year or something because of the cost-of-living crisis... people might moan about the bills going up in the short term and they might have to agree payment plans if worse comes to worse but longer term, the sustainability of the company and the services they're providing... it's necessary to reduce that risk” - Young People Panel*

Environmental benefits were viewed as an important reason for opting for the risk-driven option two for several panellists.

- *“They're thinking more about, for me, the environmental aspect of it and especially climate change and things, so yes, for me, I'd push for option two” – Online workshop 1 (Suffolk)*
- *“Thinking about sustainability, it's probably quite hot at the moment and a lot of companies that have not been sustainable are getting into the media, getting into the press and I think people look at it a lot more these days... reputation is becoming really important at the moment. So, I'd definitely push for that second option for that aspect as well” – Online workshop 1 (Suffolk)*
- *“The environmental aspect as well” – Online workshop 1 (Suffolk)*

- *“Option two. From a moral and long-term perspective, I think environmental crisis is a classic example of on a grander scale of this same question, if previous generations had asked themselves the question, should we use plastics? Should we use fossil fuels? If they'd been given those two options at this point, and they'd opted for the option two, and then we wouldn't have the mess we have right now” – Online workshop 1 (North)*

Participants valued safe, clean places which wouldn't compromise health and safety, and NWG Employee People Panellists felt that this aligned with NWG's core principles.

- *“Particularly over the last couple of years, what people have seen is the value of local clean spaces. I want to use the coast for surfing quite a lot, so having clean bathing water in my local area is incredibly important because I don't want to get ill” – NWG Employee People Panel*
- *“I'm a coastal water user, I'm a kayaker and paddleboarder and Cullercoats is one of my local spots and that's our danger bathing water... I would love to see some designated river for bathing areas” – NWG Employee People Panel*
- *“As a responsible business, which we are, I think we should ask 'would we sacrifice safety and the health and safety of people as a result of cost of living?', and the answer would be no because it's not the responsible thing to do and we shouldn't then apply that elsewhere to say, 'well let's do less because cost of living'. We still have those core principles” – NWG Employee People Panel*

### The acceptability of bill increases

It was felt that there is a responsibility by NWG to the customer to keep bills affordable due to water supply being an essential service.

- *“I think we should be going for the costly option as a business. But as a customer of the business, I would want to go for option one... because of the cost-of-living crisis. But I think, ultimately, we really need to be in a position where we are in option two. We should be in option two. We have got very old ageing assets” – NWG Employee People Panel*
- *“This is a decision that is not able to be made on an individual level... we have a regulating body, we have a senior management team, and we have a responsibility to make sure that our services are affordable because they are an essential service” – NWG Employee People Panel*

- *“If we can’t afford it and we can’t pay, what are you going to do? That is the issue that you have to look at because you keep bombarding us with bills, bills, bills I think there will come a time where we’ll be saying ‘how are we going to manage that?’” – Online workshop 1 (Essex)*

In the event of bill increases, participants highlighted that it is most important to provide clear explanations to the customer with justifications for bill increase.

- *“If you say it's going to cost us X amount to have these three critical assets replaced ... show clear evidence on my bill. If I was to get a bill that said, my water usage is £100... but overall, my bill is £125 pounds because £25 pounds is going to investment in assets. Then at least I know what that £25 pound is going for and I don't just see a price hike. And I know it's going towards those three big... it's getting rid of all those Victorian pipes... Great, I as a customer feel that I am doing something I'm helping I'm contributing to my children's waterpipes” – Online workshop 1 (North)*
- *“It's a matter of educating the people. We've been educated, within the last hour and a half. We had no idea. I dare say the rest of the folks didn't have a clue that we're all dealing with such old pipes and things like that... it's a matter of a making, like the gentleman says if he sees it on his water bill, ‘this is for that’” – Online workshop 1 (North)*
- *“The public are much more forgiving when there is a clear explanation, a clear rationale for things and it seems fair... people will pay more [if] they're getting quality, and it's an added benefit... it probably is better to take a smaller hit now but with transparency, communication” – Online workshop 1 (North)*
- *“When we know what the money has been spent on, we’re more likely to be more accepting of it” – Online workshop 1 (Essex)*
- *“It’s quite essential that people know where their money is going because our bills keep going up... you don’t know what you’re paying for... If the customers knew where their money was going, they might be a bit more accepting of a small increase” – Online workshop 1 (Essex)*
- *“I would go with number two. Get some education out there, Get some messages out there of why and what it’s all about for future generations. So, that will lessen the blow a little bit” – Online workshop 1 (Suffolk)*
- *“I think we all know option two’s probably the right way to go, but it is about ensuring everybody knows that that’s the right thing to do. Instead of just something landing through your door... it is a real opportunity to engage with customers, the whole customer base, the right way to say, this is what we’re doing, and these are the reasons why we are doing it” – Online workshop 1 (Suffolk)*

- *“If it was put out to people that it’s sustainable, it would probably make them [clearer] about doing it. They’d be more interested... happier to do so” – Online workshop 1 (Suffolk)*
- *“Option two does seem like the sensible one, but I wouldn’t want to see a situation where say in five years, ten years’ time, Northumbrian Water say, we did increase your prices, and that just covers the maintenance cost. If you want to see new assets, we would have to take a further increase. And so, I would be reluctant. But on a sort of moral level, it seems like most sensible option” – Online workshop 1 (North)*
- *“I would have to see exactly where it was going and how that would benefit the system as a whole before I would feel confident” – Online workshop 1 (North)*
- *“It’s communicating in an honest way and being clear about why they’re doing it, best intentions. I think people would be on board” – Online workshop 1 (Suffolk)*

Educating customers, with reasons provided for what the additional money would be invested in, was thought to be a way in which customers would become more accepting of bill increases. Some customers stated their dislike for having bill increases communicated to them via letters without reasons as to why.

- *“I think maybe more education... it might be a way to get people on board, to understand a bit more than maybe they do because most people just turn the tap on or flush to loo. They don’t realise what it entails” – Online workshop 1 (Essex)*
- *“Probably everyone here has had the emails and the letters through the door... It’s just quite a depressing way of engaging with people. I think the videos help me understand... but presented in an engaging way rather than just a static letter that people are just going to go, ‘the prices going up, disengage’. I think that’s important” – Online workshop 1 (Suffolk)*
- *“If customers are maybe explained the scenario... how bad things are... then people can understand a bit more rather than just, a letter coming through your door to advise you that your bills are going up... it would be more understandable, definitely” – Online workshop 1 (Suffolk)*

Some participants felt that customers would be happy to pay more due to the good reputation of NWG, and the fact that the water bills are reasonably priced.

- *“You’ve got a really good reputation and I really feel like people will pay for that little bit more. Customer service is really, really important” – Online workshop 1 (North)*

- *“I'd go for option two, and I'm speaking as a pensioner... I believe that our water company is doing a good job at the moment. And the costs are very, very reasonable. I look at my bill every time, and I can't believe how low you're keeping the costs” – Online workshop 1 (Essex)*

## Hybrid approach

A few participants highlighted the dilemma between having to choose between short-term versus long term planning.

- *“It's very difficult to say option one, option two, because it relates to a lot of detail and the general approach is very difficult to summarise at this point. What I would say is that under those circumstances, when you've got two things that work against each other, one is long-term planning, the other one is short-term costs that impact people...” – Suffolk People Panel*
- *“Option one is a bad idea in the long-term, but I'm hopeful that we'll get through this financial crisis like we did previous financial crises... I think a short-term, keeping customer's bills down for perhaps twelve months, eighteen months while we ride out the current storm might be a good idea, but in the long-term, option two is the better one” - Suffolk People Panel*
- *“You have to plan long-term knowing that there's always going to be ups and downs. That's the reality of it, so factoring this [cost-of-living crisis] in as your driver doesn't make sense” – Online workshop 1 (Essex)*

As a consequence of this difficulty, some participants suggested they were unsure, and that a hybrid, middle-ground option would be preferable.

- *“What we need is a hybridised option. A mixture between option one and option two” – Suffolk People Panel*
- *“I'd currently go for a middle ground option. Very depleted assets ought to be replaced, others that could be managed, so maybe a balancing act of what percentage of assets you deem you need a replacement you can actually afford to” - Suffolk People Panel*
- *“Is there a middle option? Or can we get away with a low-cost option that would still prevent us from having to face this and just push it down the line? Is there something we can do now? ... Ultimately, yeah, it does boil down to what is the customer going to have to contribute to and where, where can the cost be covered from?” – Online workshop 1 (North)*



- *“You've got different perspective. You've got obviously the business side, where they're going to want number two. But the homeowner will want probably number one. So, it's trying to meet in the middle really” – Online workshop 1 (Essex)*
- *“Is there a fifty-fifty option that you don't put it up as much?” – Online workshop 1 (Essex)*
- *“Realistically I think it has to be a mix of both. Like someone else said before, they're never going to be able to afford to fix everything, they just haven't got the money and it can't just be magic out of nowhere, can it?” – NWG Employee People Panel*

The logo for 'explain' is contained within a white speech bubble shape with a small square icon above the letter 'i'. The background of the entire page is a teal-tinted photograph of a woman with long, wavy hair, smiling and looking to her left. She is wearing a light-colored, long-sleeved shirt with dark horizontal stripes.

explain

**“The goal is to transform  
data into information,  
and information into  
insight”**

**Results of ‘Public Value’**

In-depth findings of ‘Public Value’.

## Results of ‘Public Value’

This section of the report concerns the findings from the research conducted on the topic of ‘public value’, which was discussed in the following groups:



Discussions began with an explanation of the concept of public value, i.e. the added value that NWG could bring to some of its assets. The example of a reservoir was used to illustrate this, with the reservoir being given public value by having additional investments brought to it, for example the provision of walking and cycle routes, car parking, cafes etc. Participants were then asked to discuss whether the concept of public value was important to them, and what they perceive to be the benefits and disadvantages of public value. It was then explained that NWG could invest more in public value, using an illustrative example of the provision of designated bathing waters. Participants then discussed whether or not they would support Northumbrian Water / Essex & Suffolk Water investing in public value, acknowledging that doing so would lead to some increase to customer bills.

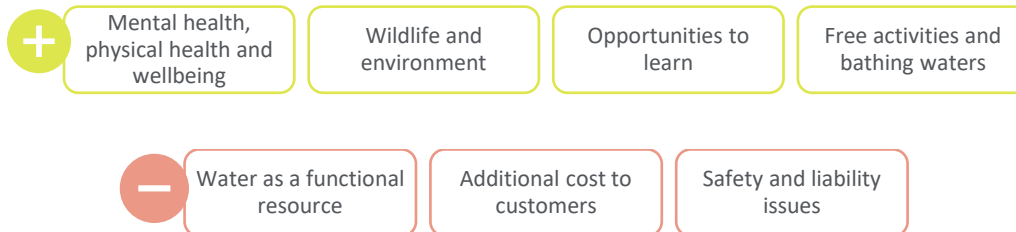
**The overarching finding was that public value was important to participants and would be worth a small increase in their bill due to the value added for health, wellbeing, and environmental reasons. However, the increase in bills should be communicated in a transparent manner, with explanations of exactly what investments will be made.**

The findings of participants’ thoughts about public value are now presented in detail and are organised in the following manner:



## The advantages and disadvantages of public value

A summary of participants' understanding of the benefits and drawbacks of public value are illustrated below:



Participants considered public value to be important and showed understanding of public value in areas they have been to or are aware of, including cafes, wildlife museums, and walkways.

- *"It's very important. Where I am, [place] have refurbished in the last few years, making the reservoir bigger, and they've put a wildlife centre in there, like a museum" – Essex People Panel*
- *"Where I live at the moment, we already have a café on the side of the reservoir and there's a host of water birds and people come from quite a long way away just to have a look, and you've always got to wait for a table. So, it must be a money-maker, as far as ESW are concerned" – Online workshop 1 (Essex)*
- *"I think that's really important... I see some of these new build properties, and I just think that they don't look pleasant, they don't look inviting" – Online workshop 1 (North)*
- *"It's really important to create really nice outdoor spaces, but it doesn't have to be hugely costly for it to become one of those great outdoor spaces. There's a reservoir not that far from me and there's just a walkway round the outside of it with a few benches, but loads of people use it" - Young People Panel*
- *"I think the public value is important and they work really, really well. Locally to where I am, there is a reservoir with a café, a bird sanctuary, walks, parks for children – there's a little park for children, and a larger park – there's sailing as well. I do all of that. I go there twice a week" - Online workshop 1 (Top Up)*

Many participants discussed the benefits of public value on physical health, mental health, and wellbeing, particularly considering the COVID-19 pandemic and benefits of public areas.

- *“It’s really important because of health, fitness and wellbeing... [it’s] on the up as well because people [are] looking after themselves” – Online workshop 1 (Essex)*
- *“During COVID, a lot of people I knew suffered a lot from mental health, because they were living in flats and there was no space for them. So, I think as a builder... I would probably build a small space for each floor... so at least they could go out there, sit there, look, enjoy the sunshine or that kind of thing to help their mental health” – Online workshop 1 (Essex)*
- *“Anything that benefits people’s health and wellbeing is always a great thing, especially mental health. If you’ve got places to go, that’s a safe, peaceful area and everything to do with mental health is very good” – Online workshop 1 (Suffolk)*
- *“The benefits that water brings to anybody with any mental health issues is absolutely immeasurable... we’re getting caught up with this public value in the financial aspects of it rather than the actual value to the public” - Online workshop 1 (Top Up)*
- *“It is a key area where we are now finding out a lot more about mental health... There’s a lot going on around mental health” - Online workshop 1 (Top Up)*
- *“That’s really important. It means so much more than I think people take credit for. So, in terms of your mental health and wellbeing, your physical access to space in terms of your actual physical health as well. So, yes, I firmly believe that’s a good thing” - Online workshop 1 (Suffolk)*
- *“I think the benefits that these facilities offer to communities and to people’s health and wellbeing are absolutely fantastic” - Online workshop 1 (Suffolk)*
- *“It adds value to the individual, you know, individual’s wellbeing generally” – Face-to-face (Barking, Essex)*
- *“Whether it’s physical health or mental health, any activities or any equipment, or whatever else can be done” – Face-to-face (Barking, Essex)*

Green spaces, which are quiet and peaceful, were of public value to participants due to the opportunity to relax.

- *“The last time we went to Epping Forest, unbelievable place to visit. I recommend it. It’s huge, massive, but it’s really nice... [and] quiet” – Face-to-face (Barking, Essex)*
- *“What I’d appreciate is quiet space, a quiet park. It’s so busy and loud round here just somewhere quiet and peaceful. And surrounded by trees so you don’t see your surrounding area, just to relax” – Face-to-face (Barking, Essex)*

The positive impact that areas of public value have on children was highlighted, with mention of learning to swim, being exposed to nature, and having opportunities to learn more about the environment.

- *“I’m fully in favour. As I say, we go regularly to our local reservoir and have a meal... it’s always full, and children like to go there as well because there’s so much for them to see and they are learning all the time from that” – Online workshop 1 (Essex)*
- *“It’s highly relevant because it’s water-based so who better than a water company who has the expertise to do something like that. It’s a brilliant idea, I can imagine schools taking children out for the day and studying the wildlife and that’s a really good investment and it touches on the educational side and helps us get out and get some fresh air. I think it’s a lovely idea” – Online workshop 1 (Essex)*
- *“It’s quite important, it’s nice to be able to go to a park and sit around a lake and grab a coffee... if you do build a park and a cafe and there’s places for kids to play, that’s going to be used down in further generations, [so] it’s not just going to be me that’s going to get further benefit out of it, it’s the whole community that’s going to get a positive experience” – Young People Panel*
- *“They’ve expanded [the reservoir] and they’ve put a wildlife centre in... and you can buy a pair of binoculars in there or you can have coffee... there’s nature walks, and the schools are now using it by taking the youngsters there, and it’s a delightful place to be” – Online workshop 1 (Essex)*
- *“We all want safe, nice places to go with our families to build memories... that they can enjoy, and they’ll have those memories all their life. And if the water company is going to maintain the quality, then they can take their children there so, yeah, brilliant” – Online workshop 1 (Suffolk)*
- *“Years ago, there used to be trips, there was always something on so, I think for the kids, not for me” – Face-to-face (Dunston, North)*
- *“You could get school trips going there [to Kielder reservoir] that don’t know anything about water, and you could teach the next generation” – Face-to-face (Dunston, North)*
- *“You can have school trips, get kids out and about. They used to do it years, but they don’t seem to do it as much now” – Face-to-face (Dunston, North)*
- *“We used to have designated youth club and we used to do all sorts of activities and do a lot of trips out and go to football matches” – Face-to-face (Barking, Essex)*

Contributing to the importance of public value was the idea of value for money by adding free activities, particularly due to the ongoing cost-of-living crisis.

- *“[With the] cost of living crisis, people can’t go out and spend the money like they used to because things cost so much, and that [a public park] is a free activity, so for me it is beneficial” - Young People Panel*
- *“I think it would be quite different depending on the area but in general, if people can see a wider picture of a positive change, because of what they’ve been able to invest in, that would be great” – Young People Panel*
- *“The reservoir... it's giving value for money. The centre itself is run by volunteers, so any profit goes back in. That's the important point, there is value” – Online workshop 1 (Essex)*
- *“There is a lot of value to things like bathing spaces, having open green spaces, the idea of cafes and things at reservoir sites. That all sounds really, really appealing and it's certainly something that I would feel okay about part of my bill going towards” – Online workshop 1 (Essex)*
- *“I think adding value, the frills to anything, is always a good thing, because there's experience, there's more to life than just going for what you absolutely need as opposed to what you can enjoy and the experiences of life” – Online workshop 1 (Top Up)*
- *“The estate that we actually bought on has those elements to it. So, green spaces, play areas, things that make it feel more like a home, which is really nice. It creates a nice environment, and it adds to our, I guess satisfaction and happiness living here” - Online workshop 1 (Suffolk)*

The importance of being able to swim in the sea and in rivers was also highlighted as a benefit in discussions with participants.

- *“It’s great to sit at the side though and watch the kids... Just roll your jeans up and have a little paddle, you don’t have to swim to do that” – Face-to-face (Dunston, North)*
- *“The kids like diving into the river and they can take the swing off a tree, it was clean” – Face-to-face (Dunston, North)*
- *“It’s a fantastic idea because I took my grandson swimming in a swimming pool the other day and I won’t tell you how much it cost but it wasn’t cheap. But if I could take him to a river, that would be fantastic.... but I think we should encourage the wildlife and all the rest of it” – Online workshop 1 (Essex)*
- *“Absolutely fine, a good idea, it’s a lot of fun for the kids” – Face-to-face (Barking, Essex)*



- *“There are always people swimming in there [the Broads] even though you are told not to because of rats and that. So, I think it would be really good to have somewhere safe to do that” – Online workshop 1 (Suffolk)*

Some participants viewed areas of public value to have benefits to wildlife and nature.

- *“What I’d really like to see more of is a focus on rather than just focusing on people benefits but actually nature and wildlife... particularly with concerns about climate change I think it’s very important” - Online workshop 1 (Suffolk)*
- *“I think we should encourage the wildlife and all the rest of it” – Online workshop 1 (Essex)*
- *“They’ve expanded it [the reservoir] and they’ve put a wildlife centre in, they’ve put a fantastic building that’s a wildlife centre in itself” – Online workshop 1 (Essex)*

Whilst acknowledging the importance of public value, some participants had taken into consideration the added cost implications of public value initiatives, and the impact this would have on customers.

- *“I like to see greenery, but I like to see it well looked after as well, so there’s a cost factor to all this. And if you... said, ‘that’s going to cost you an extra £1 a month’, just for argument’s sake, I don’t think there’d be many that would be prepared to pay it” – Online workshop 1 (Essex)*
- *“Right now, even an extra £5 a month would really make us struggle, and five years down the line, we’re not going to be any better off, we’re probably going to be worse off” – Online workshop 1 (Essex)*
- *“It all comes down to whether there are the funds to provide that extra nicety... it’s very, very nice to have a lovely housing estate to look at with trees and walkways and a little river running through it with a bridge over, but is there the money to do that?” – Online workshop 1 (Suffolk)*
- *“It all depends... on funding... and people’s budgets. But definitely, it’s going to be more attractive... somewhere that has greenery, schools, play areas... People like a sense of community, don’t they, in where they live” – Online workshop 1 (Suffolk)*
- *“Yes, it’s a lovely thing to do, and it’s somewhere lovely for families to go but as long as it’s not adding to expense for the consumer” – Online workshop 1 (Suffolk)*
- *“It’s always nice if there’s somewhere to sit and have a little park and café... because I love walking around water anyway, but that’s going to cost millions” – Face-to-face (Dunston, North)*



- *“The ability to actually facilitate that for future generations by providing access so, building a beach, or ensuring pathways and access ability to those areas... If it’s a simple thing that can be done at relatively low cost, I think it’s an absolute no-brainer” – Online workshop 1 (Suffolk)*
- *“It’s the reservations of what people could afford... would people feel like this is actually value for their money? Personally, yes, but it’s what the people can afford” – Online workshop 1 (Essex)*

Other participants didn’t have a strong opinion but felt that the importance would vary from person to person and that it would be important for the wider person to benefit from areas of public value.

- *“I think it’s important... it’s also important that it benefits everybody because... you want to add value to the local businesses... you want to get everybody on board and make sure that it trickles down to everybody” - Online workshop 1 (Suffolk)*
- *“I don’t really have a big opinion on it... it just comes down to just personal opinion and what people find important and, for me, I do find having space important”- Online workshop 1 (Suffolk)*
- *“I don’t really have much of an opinion on it.... it’s good to have my sense of community.... If an area has some green space or a community hall, the community comes together a bit more, so it kind of helps in that area. And it’s good for children to get to know other children, to go to the park together” - Online workshop 1 (Suffolk)*

Some considered water as a functional resource and preferred the company to prioritise other areas which have a negative impact on customers, such as burst pipes.

- *“I see provided water as much more functional... than living space” – Online workshop 1 (North)*
- *“It’s a nice thing to do but in reality, it feels more of a PR stunt than [a] meaningful use of the money, as opposed to really investing into the real infrastructure” – Online workshop 1 (Essex)*
- *“If you’ve got things that are, you know, the polluting of rivers, pipes bursting, it’s pointless doing all the other stuff if that’s the issue you’ve got at the moment... I’d sooner see the jobs done, fixed, before you move on to something else” – Online workshop 1 (Top Up)*
- *“If they’re releasing sewage water into the rivers, if that’s happening now, that should be fixed before they start doing... customer walking around lakes etc... you’ve got to fix the big problems you’ve got first, before you move on to the flowery things” – Online workshop 1 (Top Up)*

- *“The water in your house is important, but is this as important to us if we’ve got to pay for it?” – Face-to-face (Dunston, North)*

## The reputational benefits of public value

Participants felt that investing in public value would have the benefit of further improving the reputation of NWG, for instance, by advertising the company name and creating opportunities for small businesses.

- *“I see that as more of exploiting the true value of the full asset there. So, I was thinking of Kielder as well. Perhaps an idea might be that the franchises, the revenue from the franchises on the cafes and the canoeing clubs out there, that some of that money could go into the development of the investment in the assets” – Online workshop 1 (North)*
- *“Yeah, it’s a good thing, because it’s going to boost the economy and be good for the community as well” – Online workshop 1 (North)*
- *“It’s a good reputation for a company that provides the area and also the community” – Online workshop 1 (Suffolk)*
- *“I’d probably find out more about local projects that they [Essex & Suffolk Water] were doing. So, it would just heighten the interest” – Online workshop 1 (Suffolk)*
- *“It would... make them feel as though they’re not just ‘here’, they’re actively doing things in the community. It makes them look more caring... it would make them stand out for a good reason” – Online workshop 1 (Suffolk)*
- *“I think public value is of key importance. The reason I feel that is because what it’ll do is generate more income from a different source.... the public value to my mind, under the current circumstances is a very strong thing to do, because it brings money in from some other sources, and that in turn helps the business” – Online workshop 1 (Top Up)*
- *“It would be creating opportunities for local small businesses” – Online workshop 1 (Top Up)*
- *“I’ve always enjoyed visiting reservoirs and I’m grateful for the people who put them there, so very often I go and read the notice to see who’s responsible. And that’s a feather in their cap as far as I’m concerned... I think it’s a very good bit of PR” – Online workshop 1 (Suffolk)*
- *“I think if it’s done properly, it feels that the builder [gets] a good name and reputation and so it kind of benefits them as well” – Online workshop 1 (Suffolk)*

- *“You assume your water is from Northumbrian Water and that’s it. Whereas to be seen in the community, maybe sponsor a few things, get out there” – Face-to-face (Dunston, North)*
- *“It would give the company a better name in the long-term and people would start talking about it more” – Face-to-face (Dunston, North)*
- *“I don’t think public value can really be underestimated... the investment that the company’s put into in recent years has been really impressive. It’s a tourist facility, it’s appreciated” – NWG Employee People Panel*

Employee panellists generally considered public value to be embedded within the organisation and firmly favoured areas of public value being created by the company.

- *“Community values, it’s part of the customer focus approach, from a capital project side, we usually do try and find some way of embedding something positive into what we’re doing” – NWG Employee People Panel*
- *“It is embedded in there and I think that it should be, because we are a public service company, even if we are privately owned. So, I do think the public and community is at the heart of what we do as well as the environment” – NWG Employee People Panel*
- *“Such investments are very necessary in terms of adding value to the customer. It’s also nice to see where your money is going as well” - NWG Employee People Panel*

Safety and liability issues were considered potential reputational downsides of NWG investing in public value, due to some reservoirs, such as Derwent Water, requiring a permit to gain access to sail or swim.

- *“It brings a liability associated with it, doesn’t it?... all the access on to the water is managed through companies and organisations rather than reservoirs being free access for people to get into” – NWG Employee People Panel*
- *“The only downside and unfortunately, it’s the safety thing that they can’t do sailing in the actual reservoir itself... but maybe that could be addressed in the future. It’s just nice to see all generations going to visit it and take in wildlife, [and] chill out as well. So, it’s a great benefit to the community” - Essex People Panel*
- *“My only worry would be though, it would have to be well managed, as a responsible grandad, I would make sure that I was there. In a normal swimming pool, you have lifeguards, and, on some beaches, you have lifeguards” – Online workshop 1 (Essex)*

- *“It probably would be safer. Because we don’t have a lot of things like that, especially around here. If people do want to swim, they’ll probably go in the river, and you can’t see what’s underneath and it would probably be quite dangerous” – Online workshop 1 (Suffolk)*
- *“The only thing is health and safety.... jumping in [the reservoir]” – Face-to-face (Dunston, North)*
- *“You’ve got the safety element... how do you police it basically? Because you’ve got to trust people to be sensible and, in a river, it’s not like swimming in the swimming pool. You’ve got reeds and goodness knows what to consider and there’s deep areas, so it would have to be very carefully managed. I think in relevant locations where it was deemed to be safe and accessible, it could happen” – Essex People Panel*

A responsibility of stewardship was also highlighted regarding areas of public value as it was felt there should be an acknowledgement of the responsibility of individuals caring for that public area.

- *“It’s a lot to do with good stewardship of the people that use those places as well... the people that are regular water users and understand the countryside code and how to behave and take your litter home with you... You suddenly have this huge influx of people who that was not their usual place of leisure. The behaviours that came with that caused a lot of challenges, so there’s a balance in terms of you want the amenity benefit to be there but you don’t want to turn it into a hot spot that brings problems. It’s a fine balancing act” – NWG Employee People Panel*

## Supporting public value with investment in NWG assets

Most participants were in favour of supporting NWG with investments in public value as they felt the areas of public value would bring benefits such as opportunities for local businesses, creating jobs, and providing an educational, open, free space for the public.

- *“It’s a fantastic idea... I’m only learning about this now. Yes.” – Online workshop 1 (North)*
- *“Absolutely, I’d love to have beautiful reservoirs” – Online workshop 1 (North)*
- *“Particularly since we had the pandemic and the lockdown... I live in a house, so it was easy for me because I had a garden... the lady said earlier on... about people living in flats, [it] would give them somewhere to go... a sense of freedom effectively” – Online workshop 1 (Essex)*
- *“Yes, definitely... I think it’s a good investment” – Online workshop 1 (Essex)*

- *“I would. We like going to new places, and I think if we had new places to go to nearby, it would be nice for the family to be able to go and spend time together” – Online workshop 1 (Suffolk)*
- *“I think it would be an asset for the local community and I would be happy if it created opportunities for businesses and created jobs, then yes” – Online workshop 1 (Top Up)*
- *“Bringing money into the local economy or if you have local businesses that want to get involved with it, and I don’t have children but as X said, yes, if you’re creating the memories with family, and it’s not an expensive day out, it’s something that’s quite simple. So, to me, personally no, but to other people, yes, I think it would be a good idea” – Online workshop 1 (Suffolk)*
- *“[It’s] a really good idea. I think again bringing family together... [there] could be a free activity in the area. I’ve been to the one at Kielder and that was really nice so I would go there again. So, I think there’s quite a lot of benefits” – Online workshop 1 (Suffolk)*

Participants felt that they would appreciate NWG investing in public value if they were accessible to them, either located in their local area or amenable by local public transport.

- *“In some parts of the country we have really bad weather, and it wouldn’t be as accessible as an indoor facility would be. That would be my only query. It would bring good revenue to whichever town or wherever it was built, but I just fear it would have to be in a really good area” – Online workshop 1 (Top Up)*
- *“You might not be able to attend lots of those things, be unable to go to those places. It’s whether customers are willing to have increased bills so that the company can offer these services to other people or to people in general” – Online workshop 1 (Top Up)*
- *“Anything has got to be on bus route where it’s local for you to walk once you get off” – Face-to-face (Dunston, North)*
- *“It would be nice if they put something like that where you could get a bus because not everybody’s got a car, and it would be nice if you could just get a bus” – Face-to-face (Dunston, North)*
- *“It depends on how close it is for you to access. If it’s in Yorkshire, then nothing to do with us” – Face-to-face (Barking, Essex)*

When communicating with customers regarding public value investment, participants highlighted that they would be more likely to agree with it if the value of these places was communicated to them in a transparent way which justified investment in relation to costs.

- *“In an ideal world, yes, you wouldn't want to pay more, but you have to be realistic, pragmatic about it. So, I think it's all down to how it's communicated and put across in a way that people understand the benefits and what the increases are for” – Online workshop 1 (North)*
- *“One would hope in both the idea of river bathing areas and in development of the areas around reservoirs, the opportunity would be taken to put up boards that explain how and where the water board was spending its money” – Online workshop 1 (Essex)*
- *“It's a good idea, and it's lovely to have somewhere to walk your dogs, but it depends if we've got to pay for it” - Face-to-face (Dunston, North)*

Some participants favoured public value not for the recreational aspects, but rather from an environmental perspective to protect nature.

- *“For me, it's not the recreational stuff. It's not about creating water sports, cafes, car parks, dog walking sites... It's about protecting nature... you can build a reservoir and nature will overtake it. The hedges and trees will grow, and habitats create themselves” – Northumbrian People Panel*
- *“Something like, a designated bathing site that might, might seem like a bit of a value project, but if it can have those kinds of ecological benefits or, or practical benefits in terms of access to infrastructure” – Online workshop 1 (North)*
- *“I think that bringing wildlife back to the water is just as important as bringing people there to swim” – Online workshop 1 (Essex)*
- *“As long as it was done in sympathy, in tangent with wildlife, the benefits to people's well-being, access to nature, it being more local... it just makes sense... it's a huge reputational boost for the company” – Online workshop 1 (Suffolk)*
- *“I would because it's also about wildlife... ducks [etc.] would hang around there, so I would like to see more. [They're] free days out because it would be quite cheap” - Online workshop 1 (Suffolk)*

Whilst favoured by participants, it was raised that more information would be needed to do a cost-benefit analysis of what facilities would be gained in exchange for what rising costs of their bills.

- *“I would love to have this... but at what cost and can I support that cost? Can I have my bill increased for all these facilities which are not, for me, absolutely necessary?” – Essex People Panel*
- *“For me, does the cost outweigh the benefit that you’re going to see from that? How much are you actually going to gain from this investment? That for me is what I would be contemplating” – Young People Panel*
- *“In all honesty, I don’t think much of the public is going to care about the environment as much as we are with the cost of living going up” - Young People Panel*
- *“Think if it was a reasonable cost, then yes, I’d get behind it. it wouldn’t be the first thing I’d think about, but it would be a nice thing” – Online workshop 1 (Suffolk)*

Whilst public value was considered somewhat important, some participants felt that investments could be made elsewhere, and the priority should continue be the water network itself, particularly due to the current cost-of-living crisis.

- *“It doesn’t really appeal to me... there could be investments elsewhere” – Young People Panel*
- *“It definitely is a good thing, but that money could be invested elsewhere in perhaps making things cheaper for certain people or helping certain people. I think spending that investment is lovely, but it’s unnecessary” – Young People Panel*
- *“My advice would be, be absolutely brutal about what are the must-haves, and look very carefully at the ‘nice to have’ things and chuck them out.... Keep the musts” – Suffolk People Panel*
- *“I would say, do the basics and if there's an opportunity to open up a park or put a café, then you can sell that to somebody as an opportunity, which is self-funding... but just keep the bills down and make the network work, please” – Suffolk People Panel*
- *“Maybe in a couple of years’ time things resolve, issues in the east go away, oil price stabilises, all that stuff, and then maybe we can go and start adding some extra value, but it's just a terrible time at the moment” - Suffolk People Panel*
- *“It's not that I don't want the repairs to happen. I can understand why they need to happen, but I don't know whether I can afford the cost of it” – Online workshop 1 (Essex)*
- *“Personally, no. I think there's enough countryside out there and things that you can do... it doesn't seem logical to spend additional money on this as a sort of a luxury, when actually there's so much investment needed in the basic infrastructure” – Online workshop 1 (Essex)*

- *“It's a nice idea, but I think there's other stuff that you can mostly spend the money on” – Online workshop 1 (Essex)*

Though the water network should be prioritised, participants stated they would choose to invest in both asset health as well as public value if they were able to choose investing in both.

- *“We need to get our priorities right, first of all, and I think the main priority is service provision. After that these things appear to be, I wouldn't say luxuries... first and foremost, the investment in the assets seems to me to be a higher priority than a nice forest” – Online workshop 1 (North)*
- *“I do appreciate obviously, the value of what these nature places can add. But when you're talking about price increases to prevent service failures, I don't see why the two are connected. Surely it should come first that we'll have reliable system and then talk about potential extras that could be accrued. Well, maybe the new budget off the new bill... it just doesn't seem necessary, especially given the current climate” – Online workshop 1 (North)*
- *“We don't want to kick the can down the road further down for other generations on this issue either. It's finding that balance always” – Online workshop 1 (North)*
- *“You have to have the essentials in line first. And if these things can strike the balance between you know, kind of been cost effective and adding value, then, then it's a no-brainer, you try and do these things” - Online workshop 1 (North)*
- *“I don't drive... I don't live near any rivers... A lot of people could enjoy them but there are a lot of people that can't... for me, I'll be paying for something I can't use” - Online workshop 1 (Essex)*
- *“I'm absolutely all for development. What I'm saying is that, where I sit, there are a lot of problems... if you're going to increase services and make everything look lovely, great. But does the infrastructure you're going to invest into work with what's already broken under the floor” - Online workshop 1 (Top Up)*



The logo for 'explain' is located in the top left corner. It consists of the word 'explain' in a lowercase, sans-serif font, with a small icon of a document with a speech bubble above the letter 'i'. The logo is white and set against a teal background.

explain

**“The goal is to transform  
data into information,  
and information into  
insight”**

**Results of ‘Statutory Obligations:  
Storm Overflows’**

In-depth findings of ‘Statutory Obligations: Storm Overflows’.

# Results of ‘Statutory Obligations: Storm Overflows’

The topic of ‘Statutory obligations: storm overflows’ was discussed in the following groups:

Online deliberative  
workshop  
2 - North

Face-to-face:  
North

Discussions began by explaining what a statutory obligation is and the potential consequences to NWG of not meeting them, i.e. receiving fines.

What a storm overflow is, how they work and their purpose (minimising the risk of internal and external sewer flooding in times of heavy rainfall) was explained. This was followed by understanding of the potential environmental risks associated with spills from storm overflows, the numbers of storm overflows within the Northumbrian Water operating regions and the average number of spills per NWG overflow per year.

Two options to reduce the use of storm overflows were then proposed to participants:

- (1) Engineering solutions: This option is the cheapest way to end the use of storm overflows. It will involve building concrete tanks underground to temporarily store rainwater.
- (2) Nature based solutions: This option requires more investment and takes longer but would be better for the environment. It will involve using natural solutions, where possible, such as ponds, wetlands, swales, and planters, to store rainwater.

	Total increase to bills by 2030 (on average)	Total increase to bills by 2045 (on average)
Engineering solutions	£9	£49
Nature-based solutions	£18	£123

Participants were then asked to discuss their views on the importance of reducing the number of spills from storm overflows, their thoughts on the benefits and drawbacks of both options and to explain whether they thought NWG should comply with the statutory obligations or lobby for a later target.

**The overarching finding was that reducing spills from storm overflows is very important to participants. A hybrid approach would be preferred by many participants, taking elements of each of the approaches and ultimately creating a lower-cost, nature-based solution.**

This section of the report concerns the findings from the research conducted on ‘statutory obligations: storm overflows’ and is organised in the following manner:



## Importance of reducing spills

Across the groups, some participants considered reducing spills important, particularly due to them being apprehensive towards finding sewage in a public place. This tied into participants viewing it necessary to safeguard these public places for the benefit of future generations.

Several participants highlighted how beaches are public places where families and children often visit, and this ought to be a safe place for the public without concern of finding sewage when visiting.

- *“If it’s going to affect the beaches then yes, I am extremely concerned... I live near Amble and there was a problem with the beach this year... when we had the extremely heavy rain... it is quite horrifying to think you are going to find sewage on the beach, so yes, most definitely, I think we should reduce them” – Online workshop 2 (North)*
- *“People are more aware of this... if you do visit a beach, it’s something you want to do with your kids and your families and inherently you want to safeguard that and nature... so yeah I would say it is quite important” – Online workshop 2 (North)*
- *“It’s important to sort it out, it’s not a nice problem. I’ve seen the news about waste on the beaches and things, so yeah, I think it would need to be solved” – Online workshop 2 (North)*

Participants also acknowledged they felt they had a moral obligation to care for future generations by ensuring spills are reduced over time, to safeguard future generations in the face of a wastewater system that is likely to face increasing demand from changing weather patterns in the future.

- *“We need it for future generation, really” – Online workshop 2 (North)*
- *“Very, very important... I don't really mind whether you use overflows or not so long one reduces the problems that are caused by the overflow currently. So, I think it is important for the future generations just like X said. I don't want something building up like plastics in the sea have built up. I don't want sewage in the sea building up” – Online workshop 2 (North)*
- *“It's very important. I agree with the past two comments about the future generations” – Online workshop 2 (North)*
- *“[I'm] more concerned overall of the impact on the system that's already in place, the overall system because it may put strain on it” – Online workshop 2 (North)*
- *“With the weather changing and rain, more damage is going to be caused and the more pollution that is going to be going into the natural waterways... so the government is right to push and impose things. And hope would be that the water companies would actually do this organically, so it is very important that it is done to safeguard everything” – Online workshop 2 (North)*

However, participants felt that more could be done to raise awareness of minimising spills.

- *“I never thought about it... but that's why things like... campaigns to raise awareness will help, [it will] make people think about it” – Online workshop 2 (North)*

Some concerns were also raised regarding the costs required to prevent spills.

- *“It's very important, so it depends on the cost to the customer” – Online workshop 2 (North)*
- *“It's money at the end of the day again, isn't it? It's all money” – Face-to-face (Dunston, North)*

## Thoughts regarding nature-based solutions

In favour of nature-based solutions, participants highlighted how prioritising the environment would benefit wildlife and create spaces that are pleasant to visit.

- *“Nature... it has got to be good for the wildlife and the environment really, isn't it?” – Online workshop 2 (North)*
- *“In my opinion, nature-based should be the first option because its technically not an easy option but it will enhance the area. There will be wildlife coming and after that we could do the concrete one” – Online workshop 2 (North)*
- *“It'll be nice to see these places develop and it might even attract more wildlife... Making areas look easier on the eye” – Online workshop 2 (North)*
- *“A tourist attraction could be incorporated... that could be a benefit” – Online workshop 2 (North)*
- *“I love the country and I love walking around places like that” – Face-to-face (Dunston, North)*

The long-term benefit of looking after future generations was also highlighted by a participant.

- *“In the long run, you know it would be better to use the nature rather than going down the full engineering... because nature's... always one of the main things that you think of and it's... long term... definitely especially looking at the future generations” – Online workshop 2 (North)*

Whilst acknowledging the benefits of natural solutions, some participants discussed that cost is an influential factor in decision making.

- *“I think that nature-based solutions would be ideal in most circumstance... the elephant in the room as I see it is the cost discrepancies between them and being realistic about what they entail... most of us want an environmental response I would imagine. But as I say it's hard to say that unless you mark a ballpark figure” – Online workshop 2 (North)*
- *“I know we can show that we're benefiting the environment more than we're costing it overall, but it's still there's an initial cost” – Online workshop 2 (North)*
- *“I would vote for nature but if that is going to be more expensive... you're going to have people that are going to say, 'we want the cheaper option', because people just don't want to pay” – Online workshop 2 (North)*

A concern discussed by participants was the possible negative impact on nature and wildlife that the natural solutions could have in the event they are not looked after properly.

- *“A major factor for Northumbrian Water as an organisation, is the risk factor to that [possible negative impact on wildlife or nature]. If something goes wrong with the natural nature, is it*

*going to cost even more to put that right, and the fines that you will face if animals start getting affected by stuff. What are the risks there?” – Online workshop 2 (North)*

- *“You can imagine the wetland option somewhere along the line will go wrong and you’ll have sludge all over the place when people are going out, somewhere along the line there will be environmental damage” – Face-to-face (Dunston, North)*
- *“The problem with the wetland bit is people chuck stuff in there” – Face-to-face (Dunston, North)*
- *“You could probably devastate more wildlife” – Face-to-face (Dunston, North)*
- *“My concerns would have been the impact on wildlife and stuff like that with the wetlands and how much damage that would actually cause to the natural environment” – Online workshop 2 (North)*

## Thoughts regarding engineering solutions

The primary benefit discussed in relation to engineering solutions was the benefit of creating more jobs due to the construction needed.

- *“It’s a lot of concrete and that’s a good thing in some ways because it puts a lot of people in work, keeps construction companies going” – Online workshop 2 (North)*
- *“Just bring more jobs in, more jobs about” – Online workshop 2 (North)*

Some participants felt that the concrete tanks, by being underground, were more appealing as they would not be visible to the public and would have minimal risk of hurting the environment.

- *“At the end of the day it’s underground it’s not hurting the environment, it’s stored” – Face-to-face (Dunston, North)*
- *“I think that one just because it’s underground” – Face-to-face (Dunston, North)*

Conversely, reasons against engineering solutions included the negative impact on the environment because of the construction works.

- *“That’s a measurable impact on the environment to produce concrete and girders or whatever... There’s a lot of diggers [and] a lot of diesel being burned” – Online workshop 2 (North)*

Several participants were concerned about the costs of engineering solutions and wanted further information on how costs would compare to natural solutions.

- *“It’s just the cost, obviously the financial side of the engineering” – Online workshop 2 (North)*
- *“The water tanks sound like a great idea but I can imagine cost wise that would a be a lot more” – Online workshop 2 (North)*
- *“You’re saying it’s more expensive though. How much would that cost and that cost?” – Face-to-face (Dunston, North)*

## Suggestions for a hybrid approach

A hybrid approach was preferred by many participants, who reasoned that infrastructure may have to vary depending on the type of area and land they will be built on.

- *“I would go for a hybrid, a bit of both. Because in some places we might have the space to build a big tank and some places we might have to make a pond or a swale. It would all depend on whether the area can have a big tank” – Online workshop 2 (North)*
- *“I think a mixture of the two... there are pros and cons to both options, so that seems to make the most sense. For nature in some areas and concrete tanks in other areas” – Online workshop 2 (North)*
- *“Both of them would be workable but... it all depends on if you've got the main conurbations. Where you don't have the land, you've got to then build something... to make sure it actually works, but I'd always like to think... if there's a lot of clean water, rain water etc. around, then making use of that would make more sense to me... but if that was then changed, I had some sort of discharge water from the mains to make it unhygienic, then I would go for the bigger tanks... I would like to see more of the rainwater... being reused” – Online workshop 2 (North)*

Participants preferring a hybrid approach also highlighted they would like the benefit of low-cost solutions and creating jobs, as is the case in building concrete tanks. However, they recognised the natural solutions as having benefits of being more environmentally friendly and adding public value.



- *“I would be... hoping that there is a low environmental cost solution... there needs to be a balance between the two, both need to be employed. I don't see why one can't have a great big pit with a concrete cylinder in it, fair enough and then cover that over with wetlands. Can we not combine the two in the same place? It might be engineering impossible in certain circumstances... Each area is going to have its own solution, so I've been looking at ways to try combine as many things in one area and put a little cafe and nature reserve there as well” – Online workshop 2 (North)*
- *“Like what X said like combining the two, it would bring jobs in but the nature where it's probably better, better for the environment and the future generations” – Online workshop 2 (North)*
- *“The water tanks sound like a great idea but I can imagine cost wise that would a be a lot more. Perhaps it could be a mix of both maybe” – Online workshop 2 (North)*
- *“[A] mixture of the two, that would be good not having big ugly concrete things everywhere but making them look nice as well and being able to see them” – Online workshop 2 (North)*

## Approach to government targets


Most participants felt it necessary to lobby the government for later targets, in order to allow for more time to consider the implications of implementing nature-based solutions and ensure that the decision made is the correct one for the company, customers and region.

- *“I would say lobby government and go for nature based more” – Online workshop 2 (North)*
- *“I consider lobbying for a longer period but then again there are caveats against that, I'd need to know more about it if that makes sense” – Online workshop 2 (North)*
- *“Probably later targets to have more time to think about things but more down the nature way... just for the future” – Online workshop 2 (North)*
- *“I'll probably ask to put it further back then to make sure you've got the right solutions for everything” – Online workshop 2 (North)*
- *“[Lobbying for later targets because...] You've got cities and rural areas as well, so it just gives you more time to then concentrate on getting the right solution for the right area” – Online workshop 2 (North)*
- *“I was also calling for the longer lobby to buy ourselves time” – Online workshop 2 (North)*
- *“We want it done faster, but we just can't afford it” – Face-to-face (Dunston, North)*
- *“Probably give them more time” – Face-to-face (Dunston, North)*



The logo for 'explain' is located in the top left corner. It consists of the word 'explain' in a lowercase, sans-serif font, with a small square icon containing a document symbol to its right. The logo is white and set against a teal background.

explain

The background of the entire page is a teal-tinted photograph of a woman with long, wavy hair, smiling and looking towards the left. She is wearing a light-colored, long-sleeved shirt with dark horizontal stripes. Her hands are clasped in her lap.

**“The goal is to transform  
data into information,  
and information into  
insight”**

**Results of ‘Statutory Obligations:  
Nitrogen’**

In-depth findings of ‘Statutory Obligations: Nitrogen’

## Results of ‘Statutory Obligations: Nitrogen’

The topic of ‘Statutory obligations: Nitrogen’ was discussed in the following groups:

Online deliberative  
workshop  
2 - North

Face-to-face:  
North

To explain this topic, participants were made aware of the potential for environmental harm that is caused by excess nitrogen, i.e. the overgrowth of algae in rivers and seas. They were informed that there are two coastal areas within the Northumbrian Water region, Lindisfarne and Teesmouth, that have been identified as having unfavourable conditions due to excess nitrogen. It was also explained that both areas have been designated by Natural England for nutrient neutrality, meaning that therefore before any further development it is incumbent upon developers to mitigate against any further nitrogen within the wastewater system. It was then explained that Northumbrian Water have been asked to support the Department for Environment, Food and Rural Affairs (Defra) work in this area by removing nitrogen from sewage during the wastewater treatment process. It was also explained that Defra had stipulated that this removal be undertaken by engineering solutions that would enable the removal of nitrogen from wastewater specifically, but that the majority of nitrogen in both areas does not emanate from wastewater. The estimated bill impact for each engineered solution was also explained.

How the information for each solution was summarised to participants is shown in the table overleaf. Please note that the solution for Teesmouth involved two distinct elements and both have been presented separately.

	Total Cost	% of nitrogen from NW sources	% increase to each customer's bill	Increase to an average customer bill (£365)
<b>Lindisfarne</b> (5 wastewater treatment works)	<b>£51m</b>	<b>2%</b>	<b>0.4%</b>	<b>£1.40</b>
<b>Teesmouth</b> (Bran Sands wastewater treatment works and 4 coastal wastewater treatment works)	<b>£212m</b>	<b>38%</b>	<b>1.6%</b>	<b>£5.80</b>
<b>Teesmouth</b> (37 inland wastewater treatment works)	<b>£390m</b>	<b>2%</b>	<b>2.9%</b>	<b>£10.67</b>
<b>TOTAL</b>	<b>£653m</b>	<b>-</b>	<b>4.4%</b>	<b>£17.87</b>

It was then explained to participants that Northumbrian Water have identified alternative options, referred to as catchment based solutions, to these engineering solutions that would have wider environmental benefits and would also reduce nitrogen from other sources. As summary of these catchment based solutions is provided below.

**Catchment based solutions work by restoring natural environments that remove the nitrogen directly from rivers and seas, including:**

- Restoring seagrass
- Restoring oyster beds
- Seaweed & Shellfish farming
- Wetland creation (inland)
- Working with agriculture & industry

**Benefits would be wider than just nutrient neutrality, and could include:**

- Lower carbon emissions
- Trapping carbon in nature
- Biodiversity net gain
- Protection of birds
- Partnership working
- Job creation

Finally, it was explained that these catchment based solutions would have less impact on customers' bills than the engineered solutions outlined.

**The overarching finding was that participants considered the removal of nitrogen to be important, but the low percentage impact and high costs of engineering solutions were the main concerns, prompting participants to suggest seeking alternative solutions alongside challenging Defra. Overall, there was a preference of using catchment, nature-based solutions.**

This section of the report concerns the findings from the research conducted on 'Statutory obligations: Nitrogen' and is organised in the following manner:



## Importance of nitrogen removal

Participants felt that the harmful effects of nitrogen on wildlife renders its removal important and considered it important to weigh up all alternative solutions, such as harvesting algae.

- *"In terms of our 2%, we do need to address it. I think it's very important, that's why I probed about can we not just harvest the algae and actually make a profit out of this. Sell it to farmers to put it on their fields instead of them buying the other nitrogen artificially created nitrogen products but if we can't do that because it's disturbing and harming the birds then we need to stop producing the algae by reducing the nitrogen" – Online workshop 2 (North)*
- *"The removal of it is a positive step... because you can see the impact that's having on the wildlife" – Online workshop 2 (North)*
- *"It's clear that it is important, it's just weighing the systems up [of engineering solutions or catchment, nature-based solutions]" – Online workshop 2 (North)*
- *"The main contributor as I've said before, is the fertiliser, there must be some other way than using fertiliser like that on farmland. Surely these scientists could come up with some other way of doing it" – Face-to-face (Dunston, North)*
- *"It might only require a minor amendment in the legislation as well to include the words oral or authorized alternative. Because there will be other boards, water boards around the country who*

*can't offer these catchment solutions. I know in Birmingham they're not going to really be able to provide oyster production, are they?" – Online workshop 2 (North)*

The role of responsibility was a focal point in discussions, as there was an overall agreement that nitrogen removal is partly NWG's responsibility, but not their sole responsibility, as several participants questioned the nitrogen removal targets of other industries in both Lindisfarne and Teesmouth.

- *"[You've] got to be in the conversation, you can't just withdraw yourself from the conversation in case it is worse and then you might have to do something" – Face-to-face (Dunston, North)*
- *"I think it's everybody's responsibility" – Face-to-face (Dunston, North)*
- *"The 2% doesn't really breakdown what other industry are putting into this. Are they expected to pour in millions as well? Because yeah, we will focus on Northumbrian Water, but then if other industries are pouring in double or triple what Northumbrian Water is then I suppose it puts it in a more realistic kind of presentation" – Online workshop 2 (North)*
- *"It's not a purely Northumbrian Water's responsibility and that's what I think DEFRA need to take on board a bit more" - Online workshop 2 (North)*
- *"There is some question as to the responsibility element. Northumbrian Water are not producing all that nitrogen" - Online workshop 2 (North)*
- *"With the Teesmouth, there's a lot coming in from industry as well, wasn't there? ... Because I'm thinking if [the nitrogen] is not going to come into the water... I keep using the mussels as an example, it's going to affect our other systems because if ultimately industry is obliged to reduce their nitrogen input and it's not coming into our system there then that's not going to influence what our solutions are" – Online workshop 2 (North)*

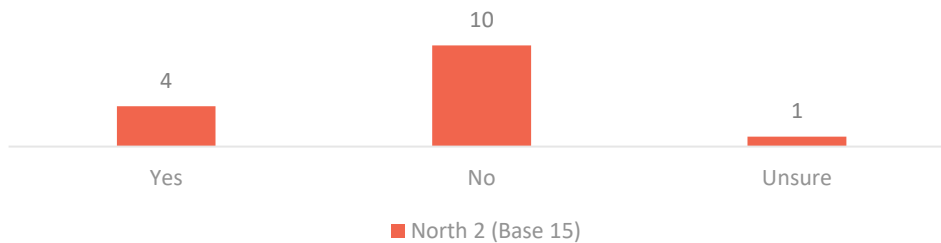
## Thoughts on engineering solutions

An overview of the engineering solutions at the three locations, and the results of participants' voting on **whether or not Northumbrian Water should invest in nitrogen removal in this area**, is provided:

	Lindisfarne (Base 15) <i>£51m for 2%</i>	Teesmouth (Base 15) <i>£292m for 38%</i>	Teesmouth (Base 15) <i>£390m for 2%</i>
<b>Yes</b>	4	9	0
<b>No</b>	10	5	13
<b>Unsure</b>	1	1	2

Most participants generally felt that they would not like to see engineering solutions in two of three alternative solutions. However, the £292 million cost for engineering solutions which would treat Bran Sands and four other wastewater treatment works, in one Teesmouth area, was preferred by most.

Do you think NW should invest £50m to remove nitrogen from wastewater at five wastewater treatment works around Lindisfarne?



When considering the engineering solutions for Lindisfarne, most participants disagreed with this approach due to having a low impact (2%) and high costs.

- *"If you do that by yourselves it's going to make a minimal impact anyway; 2%. There's another 98% still doing it" - Face-to-face (Dunston, North)*
- *"It's going to cost you that much money just to see no difference" – Face-to-face (Dunston, North)*
- *"It's going to cost you a lot of money, but it's not going to really remove much, is it?" – Face-to-face (Dunston, North)*
- *"Why, if it's not bothering anything, 2% is nothing compared to what else is going on in the world" – Face-to-face (Dunston, North)*

□ *“I think you should [remove nitrogen] but, for those sites where there is only 2% impact of the whole nitrogen output, then its negligible... spending all that money on the 2% return is probably the wrong solution when you have other solutions that are going to work better for the environment, but also for creating jobs” – Online workshop 2 (North)*

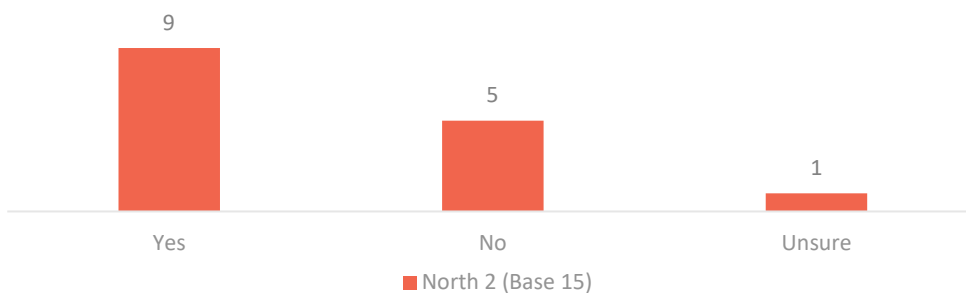
The concept of value for money was referred to as some participants felt that making a difference of 38% in Teesmouth, despite the higher cost, would be worthwhile due to the greater impact.

□ *“£390 million to address 2% of the problem in that area... it's not worthwhile. That is ridiculous amount of money when you look at the overall figures for the whole project of both areas” – Online workshop 2 (North)*

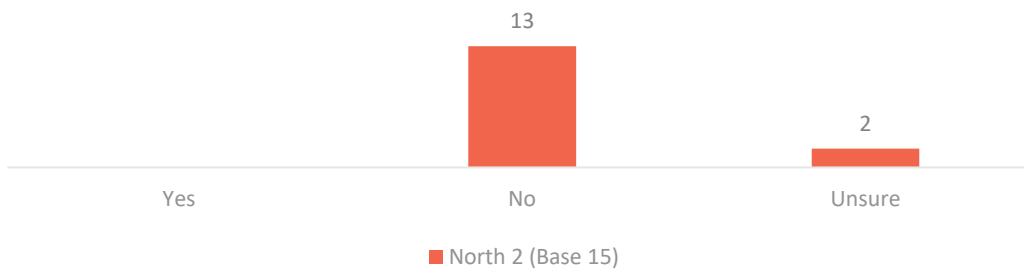
□ *“The 2% seemed like it was not much of an impact as the 40%... it just wouldn't make as much of an impact... probably the 40% one was the better one to look at” – Online workshop 2 (North)*

□ *“We should sack off the 2% and do the 38% because that has got the biggest impact” – Online workshop 2 (North)*

**Do you think NW should invest £212m to remove nitrogen from Bran Sands and four wastewater treatment works around Teesmouth?**



**Do you think NW should invest £390m to remove nitrogen from thirty-seven inland wastewater treatment works around Teesmouth?**



One participant felt that a benefit of the engineering solutions was that there would be no requirement for land grants.

- *“For me... the 38% seems great and the 2% seems terrible... if the numbers were lower personally, I would go for engineered because by the sounds of it this would be in all the current water treatments works and it wouldn't require any sort of land grants” – Online workshop 2 (North)*

One participant felt that environmental benefits were not enough to base their decision on, and felt they needed more information to decide which option they would prefer. Other reasons for being unsure when voting relate to the lack of information on engineering solutions, such as the creation of job opportunities, requirement of land grants, and dependence on other factors, when comparing with natural, catchment-based solutions.

- *“If you're talking about creation of jobs in seaweed farms for example, what about the creation in jobs in all these new engineering projects? It's very much just a numbers game, it's which one would be suitable at the time and I'm not entirely sure” – Online workshop 2 (North)*
- *“If you're talking about the percentages in the decrease of nitrogen, to what extent [are] those decreases guarantee[d]? And correct me if I am wrong, engineers' methods seem like they would pretty much give you a guaranteed return of “it will decrease by 2%”, while surely the seaweed farms and that sort of thing would depend on a multitude of factors of demand, how large your farms are...” – Online workshop 2 (North)*
- *“I haven't got an opinion because I don't know enough. I've never given it a thought” – Face-to-face (Dunston, North)*

## Thoughts on nature-based, catchment solutions

Participants favoured the catchment, nature-based solution due to it being a way to remove nitrogen whilst protecting wildlife, being environmentally friendly, creating jobs and costing less.

- *“I understand about the engineering; it'll get rid of the nitrogen. But the catchment [nature-based] solution is going to... bring a more of an environmentally healthy look to everything” – Online workshop 2 (North)*



- *“It's important, but I was getting the feel that you're being pressurized into taking these actions when the second part of building the oyster bays etc. [nature-based solutions], that seemed to be more realistic and to be a better outcome” – Online workshop 2 (North)*
- *“If they do a natural [based approach] ... it's better for the environment and wildlife and everything” – Online workshop 2 (North)*
- *“[My concern is] about an awful lot of concrete going in here again, it's harmful to the environment. We're supposed to be helping it by removing nitrogen but we're destroying other areas and polluting by in the method that we do it” – Online workshop 2 (North)*
- *“There is an impact on nature and stuff isn't there, on wildlife and. So, you know if they say it is having an impact on the environment and the natural animal kingdom in and around it, then it's an issue” – Online workshop 2 (North)*
- *“It's very important, protects the wildlife, and I think they need to have a natural way to do it” – Online workshop 2 (North)*
- *“Environmentally friendly because you're not going to be building this stuff, you're just going to be planting” – Face-to-face (Dunston, North)*
- *“The catchment [nature-based] solution is going to create jobs... definitely the catchment solution because it's going to be less of an impact money wise” – Online workshop 2 (North)*
- *“If they do a natural [based approach] it's a lot cheaper” – Online workshop 2 (North)*
- *“The catchment-based one... it's only going to cost £15 million” – Face-to-face (Dunston, North)*
- *“Definitely the cheaper option” – Face-to-face (Dunston, North)*

## Thoughts on challenging Defra

Overall, participants felt that Defra should be challenged as there was a lack of understanding as to why alternative options have not appeared to be considered as solutions.

- *“Defra have come up and said it needs to be done this way, and they haven't seemed to have looked at any other solution. It just seems it's their way or no way” – Online workshop 2 (North)*
- *“It's worth challenging definitely, but I do think the catchment solution is going to be ongoing, isn't it? ... We keep improving and keep extending... It starts off with trying to fulfil one solution and then you end up going off in other directions” – Online workshop 2 (North)*

- *“It should be definitely challenged, as with all things... it doesn’t come across as completely innocent... but it should also be considered” – Online workshop 2 (North)*
- *“There just seems to be too many benefits [of alternative options] for it to not be challenged. It doesn’t make any sense as to why that alternative isn’t an option” – Online workshop 2 (North)*
- *“Yes... it looks like you’ve got a lot of opportunities there to use the natural source... the challenge should be back to DEFRA to listen more of what can be done” – Online workshop 2 (North)*
- *“I think the how as well because even within the northeast you’ve got a big difference between Lindisfarne and Teesside and if you think of the rest of the country like X said, there can’t be just one plan to fix everything, it’s got to be more like spread out and actually there’s got to be more conversations going on about individual areas by the sounds of things. So, I think it will be a different... A different solution” – Online workshop 2 (North)*
- *“On that evidence I would say yeah” – Face-to-face (Dunston, North)*
- *“They made a really good argument...I would say yes challenge it” – Online workshop 2 (North)*

It was also thought Defra should be challenged as there should be more information provided on costs as bill increases during the cost-of-living crisis would impact customers.

- *“There’s the cost thing as well. If it’s going to cost me £18, and there’s also infrastructure increases... my bill is going to go up significantly and I, the customer, want to rattle my sabre... but it’s not something that we want to do [with] the living crises” – Online workshop 2 (North)*
- *“I definitely feel like they should do... I just think that with the cost of living going up as a whole it’s something where it’s got to be the right time” – Online workshop 2 (North)*
- *“[They would need to challenge] how they’re doing it really, maybe the cost wise and why is it such a big difference in the cost wise” – Online workshop 2 (North)*

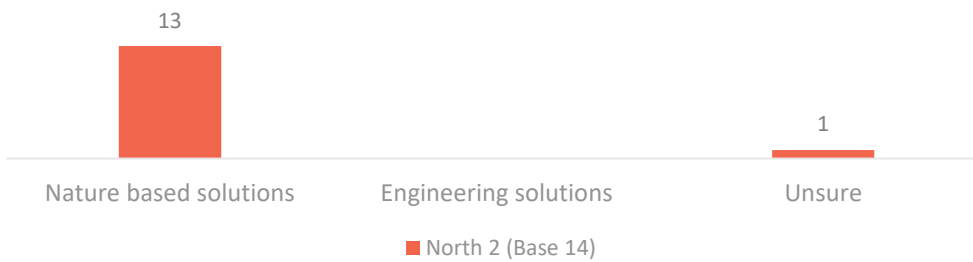
Participants also felt Defra should be required to provide more information on how help will be provided and ensure that a tailored approach is taken for the region in which nitrogen removal takes place, to ensure companies work collaboratively.

- *“I’d definitely go back to them ask for more help and other companies should help as well” – Online workshop 2 (North)*

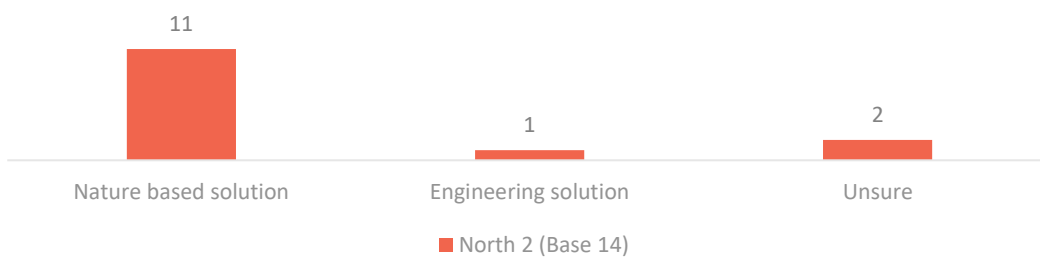
□ *“It needs to be challenged on ‘how’ it’s done because it doesn’t offer it... The world is not a one-cap, one-size-fits-all... It’s unfair that they [NWG] should have to go along and... use an approach that is inappropriate and therefore unjustified” – Online workshop 2 (North)*

When taking all aspects of the discussion into account, a final poll was launched which asked whether participants would support Northumbrian Water if they pushed back on the engineering approach and instead worked with partners to invest in catchment, nature-based solutions. The vast majority of participants stated they would support Northumbrian Water to push back on engineering solutions at both Lindisfarne and Teesmouth.

**Would you support NW if they pushed back on the engineering approach Defra may put into law and instead work with partners to invest in nature based solutions at Lindisfarne?**



**Would you support NW if they pushed back on the engineering approach Defra may put into law and instead work with partners to invest in nature based solutions at Teesmouth?**



To summarise, the majority of participants felt that the catchment, natural-based solutions had more benefits, including creating jobs, costing less, and being environmentally friendly, and less of a negative impact on them as customers.


The engineering solutions weren’t as acceptable to participants in two of the three solutions. However, participants generally favoured engineering solutions in one of the Teesmouth areas, where treatment

would take place at Bran Sands and four other wastewater treatment works, due to the 38% high impact being considered value for money.

- *“Why would I spend hundreds of millions of pounds when I could spend tens of millions of pounds and get a very much better eco-friendly system that produces mussels? The area could become famous for mussels, we could have industry growing here and make use of our environment in an environmental way it just really doesn't seem like a starting option to be taking this engineering approach” – Online workshop 2 (North)*

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explain

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**“The goal is to transform  
data into information,  
and information into  
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**Results of ‘Bill Profiles’**

In-depth findings of ‘Bill Profiles’.

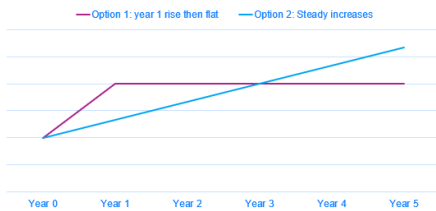
# Results of ‘Bill Profiles’

The topic of ‘bill profiles’ was discussed in the following groups:



Participants were reminded that, **from 2025, water and wastewater bills will have to increase** to fund various investments that are required. Therefore, the ways in which participants would prefer to see their bill increase was then explored. Four options for bill increases were explored, these are shown in the charts below:

**BILL PROFILES**  
**FLAT VS INCREASES**



In both these options the total amount you pay is the same

**INCREASES: STEADY OR UNSTEADY**



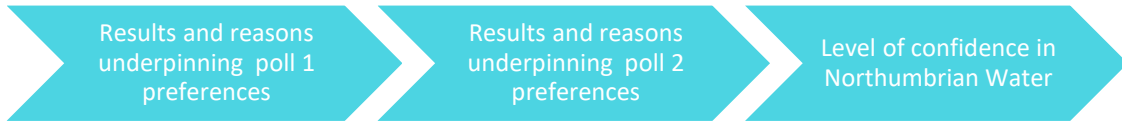
In both these options the total amount you pay is the same

Bill profiles results	(Base 44)	%
<i>Year 1 rise then flat</i>	11	25%
<i>Steady increases</i>	33	75%
<i>Unsure</i>	0	0%

Bill profiles results	(Base 47)	%
<i>Steady increases</i>	45	96%
<i>Unsteady increases</i>	2	4%
<i>Unsure</i>	0	0%

The overarching finding was that steady increases are preferred by most participants as the cost-of-living crisis and rising of other bills meant they would be able to cater for the bill increases better.

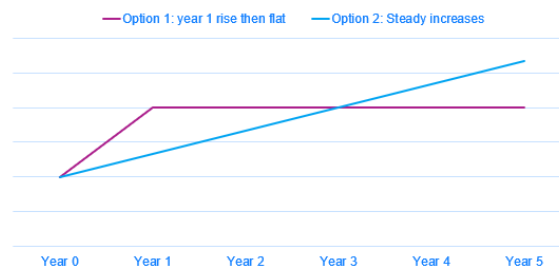
This section of the report concerns the findings from the research conducted on ‘bill profiles’ and is organised in the following manner:



## Poll 1 – year 1 rise then flat, or steady?

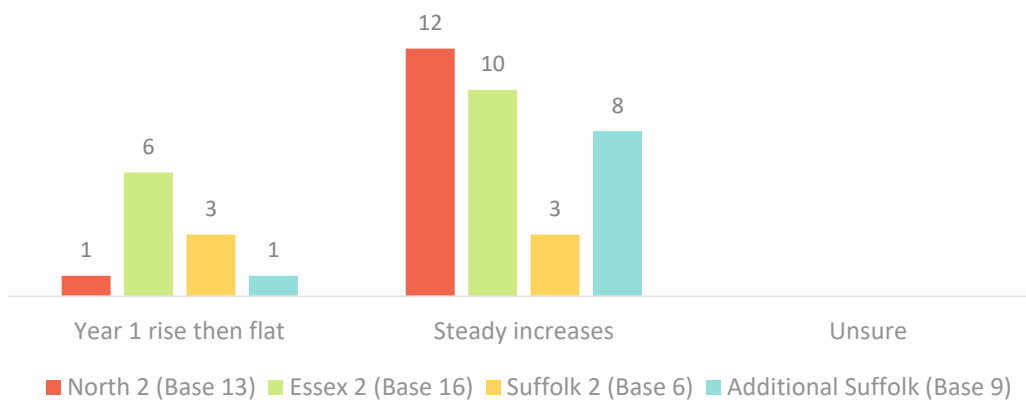
The first poll asked whether participants would prefer to see their bill profile steadily increase, or to have a sharp increase in the first year then remain flat. Results, shown below, illustrate that the majority of participants (75%) would prefer a steady increase.

### BILL PROFILES FLAT VS INCREASES



In both these options the total amount you pay is the same

Would you prefer a bill profile where you would have a year 1 rise then flat, or a steady increase? (Base 44)



The primary reason underpinning participants' preference for a steady increase was the rising cost-of-living and generally having to be able to afford increases in other utility bills at the same time. It was felt that steady increases would be more manageable and easier to budget, which would feel like less of an impact on customers.

- *"I voted for the steady increase... with the cost of living up as a whole, it would be easier to manage little steps rather than having it one step, then staying the same then having another increase" – Online workshop 2 (North)*
- *"Although ultimately at the end it's the same amount, it feels like less painful to have the small increments. And like X said with the cost of living, it feels more manageable to just be increased in small amounts" – Online workshop 2 (North)*
- *"I know it's going to be kind of steady and yeah, we will expect it, but if we are talking a kind of unsteady increase then from my head, I would struggle with that" – Online workshop 2 (North)*
- *"Services, electricity, gas, water will never go down. Because they are networks that have to be maintained... some people might not [be able to] afford a change, a big increase in the bills... might make it easier on a gradual change" – Online workshop 2 (Essex)*
- *"Say it's 2025, the year that you're going to roll out that that big bump of an increase. That could be, for 10% of the country, a really terrible year. The year that they've just lost their jobs, or... whatever's going on with whatever utility bill or petrol or whatever and knowing that you're going to have this big lump that you'd have to find. It might just be unmanageable for some people" – Online workshop 2 (Essex)*
- *"It's easy to anticipate how much you are having to manage your budget" – Face to face (Barking, Essex)*
- *"Just so that you know where you are each month with your bill, and knowing that next year is going to be exactly the same" – Face to face (Dunston, North)*
- *"It's just a little increase every year that you don't really feel it" – Face to face (Dunston, North)*
- *"[Steady increases] is the safer option long-term. I think if you jump it up quick, people will panic, and you'll get loads of phone calls with people saying, 'I can't afford to pay that'. Even though it's going to flatten out, people will just panic. Whereas if it just goes up a little bit the first year and then gradually goes up [there would be less panic]" – Face to face (Dunston, North)*
- *"Everything's going up. I don't really want a big bill for one year. I'm just hoping a steady increase, sort of people's wages will steadily increase. My pension hopefully will steadily increase,*



*and I'll be able to cope with that rather than a massive hit in year one. I'd rather do it gradually"*  
– Online workshop 2 (Suffolk)

- *"If some people are struggling now, they probably don't need a massive increase in another bill. It was hard, but I just thought that bill's a big increase and if people are struggling already, this I just think it's easier, a little over a longer time"* – Online workshop 2 (Suffolk)
- *"That slow incline feels more comfortable"* - Online workshop (Additional Suffolk)

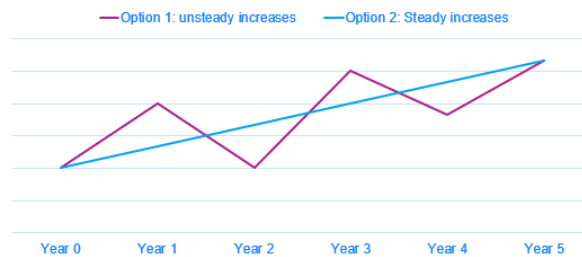
The primary reason underpinning participants' preference for a year 1 increase, then to level out flat, was also due to the rising cost-of-living and generally preferring to know up front what they would be expected to pay, in order to help them budget over the remaining four years.

- *"I just thought with the cost of living that I think everyone expects bills to rise, and it's a bit like fixed rate mortgages now - I would rather fix it and know what I am going to pay"* – Online workshop 2 (North)
- *"If you get the increase initially and immediately, it's paid, it's done... that makes it easy and it's for peace of mind - you know what you've got to pay for four years. You've got the explosions done"* – Online workshop 2 (Essex)
- *"I'm prepared to pay and little extra the first year, and then have the same bill for the rest, yes. At least I know what I've got to pay"* – Face to face (Barking, Essex)
- *"Just so you know where you are with your monthly bills"* – Face to face (Dunston, North)
- *"People like consistency... and they'd like to know what their bills will be... If you think you're going to have one year of maybe higher bills, and then after that, you can know exactly what your bills going to be. It's a really tough one, to be honest. I just think... after that the next four years, they'll know exactly what their bills can be.... Peace of mind"* – Online workshop 2 (Suffolk)
- *"I have enough other bills that go up every year. So, I'll take the hit on that first year. And then I'll know what's going on for the next four"* – Online workshop 2 (Suffolk)
- *"It will help with budgeting for the future. You take this... hit the first year and then... at least you know what that bill was going to be for the next four years. And that might help you budget if you've got to do other things. But it wasn't easy [to decide]"* – Online workshop 2 (Suffolk)
- *"I like to be organized and know what's going out, so I don't want to get comfortable... the following year comes and then it's gone up [by] £15 pounds a month, or whatever... I'd rather just know... and that doesn't change"* - Online workshop (Additional Suffolk)

## Poll 2 – unsteady increases, or steady?

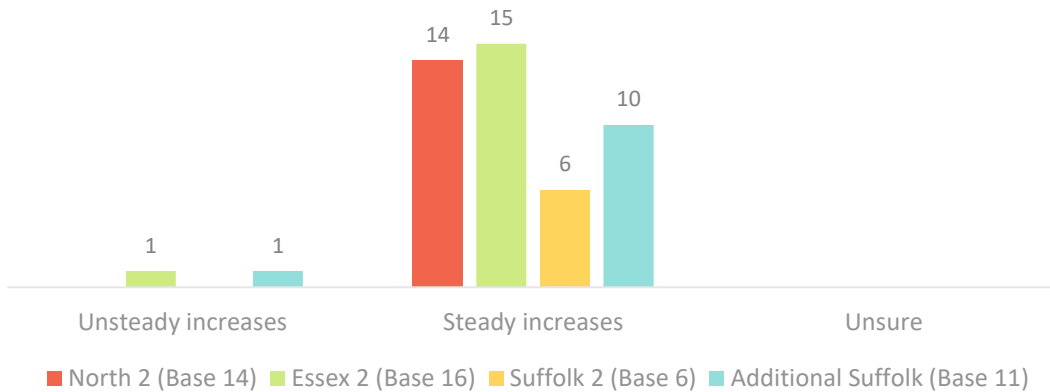
The second poll asked whether participants would prefer to see their bill profile have steady increases or unsteady increases. Results, shown below, illustrate that the vast majority of participants (96%) would prefer steady increases rather than volatile changes in their bill.

### INCREASES: STEADY OR UNSTEADY



In both these options the total amount you pay is the same

### Would you prefer a bill profile where you would have unsteady increases, or steady increases? (Base 47)



The primary reason underpinning almost all participants’ preference for a steady increase was a desire for consistency, and making it easier to budget as a result.

- “It’s consistency, it’s knowing your bills and your direct debit” – Online workshop 2 (North)
- “Everything else goes up so it makes sense, to do it steadily, like your child benefit, your wages everything” – Online workshop 2 (North)
- “A steady increase makes it much more easy to budget” – Online workshop 2 (Essex)

- *“I think that first and foremost the unsteady one is, it's a bit confusing. How do I remember which year it's going to be lower? .... Secondly, I really doubt is going to happen, that there will be years that you will have lower bills” – Online workshop 2 (Essex)*
- *“It gives people a false sense of security when the second year goes down and everybody says I'm getting it cheaper, and then all of a sudden you get charged double the next year... whereas, if it's a gradual increase it's not too bad” – Face-to-face (Dunston, North)*
- *“With option two it's that steady increase, but option one from year to year I wouldn't know whether I was coming or going” – Face-to-face (Dunston, North)*
- *“You know how much a bill is, so you've got that money” – Face-to-face (Dunston, North)*
- *“You're not going to know from one year to the next when it's going to be high, when it's going to be low, and increase there in year three looks quite a large increase... At the moment, people want to know what their monthly outgoings are. And then again, if you had a year of a lower price, if it went down, and you'd you get used to that and then you perhaps spend it on other things that you shouldn't spend it on where you should be putting it away because the following year, it's going to go up quite a lot” – Online workshop 2 (Suffolk)*

Two participants preferred a more volatile bill, with one participant explaining this is due to them believing uncertain, variable circumstances fits in with the way of the world currently.

- *“We live in a very variable set of circumstances. Based on that I take the view, perhaps an unsteady increase fits in with the ethos of where we are today in the world we live in” – Online workshop 2 (Essex)*
- *“People want to lower income may be able actually afford it at that point. So, having the troughs in the graphs provides people perhaps a low income, an opportunity to save some money ready for the peaks. Whereas if you've got a steady gradient, it's expected that they will constantly have that money ready for the increase” - Online workshop (Additional Suffolk)*

The logo for 'explain' is located in the top left corner. It consists of the word 'explain' in a lowercase, sans-serif font, with a small icon of a document with a speech bubble above the letter 'i'. The logo is white and set against a teal background.

explain

**“The goal is to transform  
data into information,  
and information into  
insight”**

**Results of ‘Statutory Obligations:  
Leakage’**

In-depth findings of ‘Statutory Obligations: Leakage’.

## Results of ‘Statutory Obligations: Leakage’

The topic of ‘statutory obligations: leakage’ was discussed in the following groups, with participants who are customers of Essex & Suffolk Water:



This section of the report concerns the findings from the research conducted on ‘statutory obligations: leakage’ and is organised in the following manner:



It was explained that reducing leakage will contribute to maintaining reliable and resilient supplies in the long term as less water is lost on the way to homes and businesses. The environment will benefit by reducing the amount of abstracted and needed to treat water, thereby reducing the amount of chemicals and energy used the treat and transport water. Comparative data was also provided to indicate that Essex & Suffolk Water is an industry leader in the amount of water lost through leakage.

It was then explained that the regulator is imposing a target of 50% reduction in the amount of water lost to leakage on all water companies. However, that because of progress already made, it was felt that this level of reduction by Essex & Suffolk Water would be impractical. Therefore, the regulator has been challenged and Essex & Suffolk Water plan to reduce the amount of water lost to leakage by 40%.

Participants were asked about the importance of reducing leakage, and whether they thought Essex & Suffolk Water should comply with the statutory obligation of a 50% reduction in leakage.

**The overarching finding was that reducing leakage is important to participants, however, there was no firm result of participants’ view on where Essex & Suffolk Water should position their level of reduction target. There was a split decision between participants who viewed it important to reduce leakage by 50% to promote high standards and maintain consistency between companies, and participants who thought the target should be reduced due to Essex & Suffolk Water outperforming other water companies.**

## Importance of reducing leakage

Overall, all participants considered reducing leakage as important, reasoning that the presence of leaks causes disruption to traffic and people in homes.

- *“They've got to make investment area. It doesn't look good when there's leaks. We've got a leak at work that's now been there for on and off about four months. And we just get nothing but complaints” - Online workshop 2 (Essex)*
- *“I'm surprised that that number [of leaks] isn't a lot higher. And for that exact reason of the disruption that it causes to traffic, disruptions it causes to people's homes with water pressures and everything else. I think it's a major, major investment impact” - Online workshop 2 (Essex)*

Participants felt that there needed to be a balance between fixing leaks and replacing assets to ensure the network is upgraded, rather than continually fixed in a short-term, patchwork manner.

- *“People need to understand that some things have to be done when, when they need to be done, basically. Because as it gets delayed, it might get worse. So yeah, I think it should be a balance between fixing and replacing completely” – Online workshop 2 (Essex)*
- *“We always have to look at the advantages and disadvantages. I mean, investing in leakages. As you rightly said, if you realize that it's happening over and over, they will try and change the whole pipe... I realized that some of your assets are very old, but they are still in good working condition. So, I think it will be good to continue investing in leakages. And I think the other problem we all have now is that we are now a lot. You know, back then the amount of people using water and all that wasn't as much as now” – Online workshop 2 (Essex)*
- *“I think in the modern world of 2022. We should have a balance in between fixing the leakages and also update, upgrading the network as well. So, we should consider upgrading the network alongside fixing the leakages as well. Because as we've been discussing, there are lots of assets which are like very old, and they will need improving and fixing and improving temporary at least” – Online workshop 2 (Essex)*



The impact on the environment and reference to Essex as being the driest county in England were also discussed as reasons to reduce leakage.

- *“I definitely think it's important for the consumer but also for the environment that leakages are kept to the minimum...I definitely think it is an important area to be addressed and with investment” - Online workshop 2 (Essex)*
- *“Leakages, especially for Essex, are very important [with] Essex being the driest county In England, and with the current environmental issues... I think preventing leakages and repairing the existing leakages are ... one of the most important things” - Online workshop 2 (Essex)*
- *“It is absolutely important that it is dealt with, for a variety of reasons. Water is a scarce resource, as we know it, and therefore for environmental purposes, it has to be done. The issue I have is, what the industry seems to be doing is patchwork, and it's not stepping back and saying, 'let's look at the bigger picture'. The stuff is old, its degraded”- Online workshop 2 (Essex)*
- *“I completely agree that fixing leaks it should be a top priority. Just the fact that it affects the environment is not for me to say you know what we need to do. It... just means that we need to invest more into that” – Online workshop 2 (Essex)*

The manner in which leaks were repaired was also referred to, with participants acknowledging that smaller leaks would be less important, but larger leaks should be dealt with in a timely fashion, whilst ensuring fixing leaks is done in a cost-effective manner.

- *“The leaks... need to be repaired- and swiftly. Although we'll talk about some of the leaks not [being] cost effective so, I do understand... when it's obviously costing too much for the size of the leak. If it's a trickle or so, I do understand that, but if it's obviously a leak that needs to be repaired, then so it should be as well” - Online workshop 2 (Essex)*
- *“We experience leaks quite often. Nothing strange about seeing the water running down the road and you think all that is going to waste.... admittedly, it is dealt with quite quickly, but we'd like it dealt with even quicker” - Online workshop 2 (Essex)*
- *“It's in the water company's interest to continually monitor the leaks and fix where they can. The most economical way” – Online workshop 2 (Essex)*
- *“Doing it all at once is going to be very expensive. And I think that's what you are trying to do” – Online workshop 2 (Essex)*

## Thoughts on Essex & Suffolk Water's level of reduction target

There was no overall consensus reached when considering statutory obligations of reducing leakage, as there was a split decision by participants who thought the target should be kept at 50% and those who thought it would be best to reduce this to 40%.

Some participants felt that it was important to strive to be the best by keeping the target at 50%, and also reasoned that it's important to be consistent between companies.

- *"I think they should be held to the highest standards. Reduce by 50%. Continue being competitive and being the leader on the industry. If they drop just to forty percent and everyone else just catches up it doesn't really solve the problem" – Face-to-face (Barking, Essex)*
- *"I'd look at myself rather than others, and we all know that saving water is good so, if we can strive and reach that 50%, regardless of what other companies [are doing] ... It can't 50% for this company, 80% for the other company, it must be the same for all" – Face-to-face (Barking, Essex)*
- *"I think if the levels it can be achieved, then why not?" - Online workshop 2 (Essex)*
- *"50% will be the better option... but if it's going to be horrendously expensive, then they will have to keep it [low].... We're all having to cut costs, so I suppose Essex & Suffolk have got to cut costs, too... we're below the average scale now, which is good. And if we can keep below that average, just reduce it even further would be an ideal situation" - Online workshop 2 (Suffolk)*
- *"You have to think what sort of example it is... yes, it's already doing better than others [companies], but does that then set an example for other people that say, 'they're only going to do 40 so we'll now do 35', then someone goes, 'well, I'll do 30'. So, you have to be a bit careful. They already lead by example, but continue to lead by example" - Online workshop 2 (Suffolk)*
- *"I think it's fair. I know Essex & Suffolk Water have already done a bit... but I'm afraid it seems to me that 50% does it" - Online workshop (Additional Suffolk)*
- *"Whatever way, we're going to have to pay for it, aren't we? So, I'd rather pay for 40% than 50%" - Online workshop (Additional Suffolk)*



As Essex & Suffolk Water are meeting their current target of reducing leakage, and that they're one of the industry leaders, some participants felt the 50% target should be reduced slightly to be fair, and to ensure the costs of bills stay lower for customers.

- *"No... you are performing really well, so the others who are not should have to come into line with the ones who are, not that you've all got to do, that doesn't seem fair" – Face-to-face (Barking, Essex)*
- *"I do take the point that was made about sort of the relative of what companies are already doing and how Essex & Suffolk Water are definitely already doing a lot better than others... perhaps the 50% decrease wouldn't be as appropriate, but I definitely think it is an important area to be addressed and with investment" - Online workshop 2 (Essex)*
- *"The others should reduce by more than 50% and to catch up" – Face-to-face (Barking, Essex)*
- *"It's important to bear in mind what the current levels of the different companies are so, 50% for one company could be a huge reduction that's very necessary. 50% for another... you're talking about going to a very small level. Without single facts and figures, possibly 40% rather than 50% would be reasonable for Essex & Suffolk Water" - Online workshop 2 (Essex)*
- *"I don't think it's really fair that we're expected to perform in the same way"- Online workshop 2 (Essex)*
- *"There should be a numerical target rather than [50%] ... Essex & Suffolk Water are already hitting targets brilliantly... so, for them to have to try and hit 50% of that, again. It doesn't make sense when, you know, the London systems are so far behind" - Online workshop 2 (Essex)*
- *"40% is realistic... it's all about the PR for the company. That customers hate it when they see the leaks, and it gets put on Facebook, 'have you seen waters running away down long road again?'. That sort of thing happens... If you seem to be doing something, then that is good for you, for the way customers feel about you, and about paying their bills" - Online workshop 2 (Suffolk)*
- *"I don't think you should be... pushed to do the... 50% if you've been doing well already. Other counties... have not had such good results with their leakage, so maybe you can be then rewarded for not having to do the 50%. 40% would be... quite good really" - Online workshop 2 (Suffolk)*
- *"Doing something is better than nothing... the cost of living, everything's going up, so no one really wants any more bills. So, I'd say 40% is reasonable considering that, you know, things are going well so far" - Online workshop 2 (Suffolk)*
- *"They must have a fairer way of working to give each company a target... they should a push back and say that the way that it's been worked out doesn't seem particularly... mathematically*

*sound... I'd say 40% is fine, because it was still taking us down a long way" - Online workshop (Additional Suffolk)*

□ *"It doesn't seem to me to be fair to Essex & Suffolk Water, who are already doing very well, to say you've got to improve by 50%... it just shows Essex & Suffolk Water have already put a lot of funding in and I think they ought to be fighting the Government on this one" - Online workshop (Additional Suffolk)*


□ *"It's almost unjust to penalize companies that have shown initiative have been like, market leaders have invested that money to already get the cost down... I would agree 40% is a fair pushback" - Online workshop (Additional Suffolk)*

□ *"My view of it seems they ought to be prioritizing, penalizing those companies who are performing extremely badly and looking at how they can actually improve the situation" - Online workshop (Additional Suffolk)*

□ *"You can't look at 20 different companies, each operating in different parts of the country with different conditions and expect them to all do the same thing... I certainly think it'd be easier to get down from 180 to 90 than it is to get down from 80 to 40" - Online workshop (Additional Suffolk)*

The logo for 'explain' is located in the top left corner. It consists of the word 'explain' in a lowercase, sans-serif font, with a small square icon containing a document symbol to its right. The logo is white and set against a teal background.

explain

The background of the entire page is a teal-tinted photograph of a woman with long, wavy hair, smiling and looking towards the left. She is wearing a light-colored, long-sleeved shirt with dark horizontal stripes. Her hands are clasped in her lap.

**“The goal is to transform  
data into information,  
and information into  
insight”**

**Results of ‘Statutory Obligations:  
Securing Water Supply’**

In-depth findings of ‘Statutory Obligations: Securing Water Supply’.

# Results of ‘Statutory Obligations: Securing Water Supply in Suffolk’

The topic of ‘statutory obligations: securing water supply’ was discussed in the following groups, with participants who are only customers of Essex & Suffolk Water:



Firstly, participants were reminded that all water companies produce a Water Resources Management Plan (WRMP) which lays out **how future water supplies will be secured** in order to continue to meet demand. It was explained that forecasting future supply and demand relies on modelling based on assumptions around future rainfall and population growth, for instance. From 2030, the Environment Agency (EA) is reducing the amount of water that water companies can take from rivers to prevent a negative impact on the environment. Essex & Suffolk Water are planning on addressing problems by investing in new infrastructure. The two options are as follows:

<b>Reservoir (winter storage)</b>	Could take up to 2035 to be operational; has a higher up-front cost; and a lower running cost long-term
<b>Effluent Plant (reuse scheme)</b>	Could be operational by 2032; has a lower up-front cost; and a higher running cost long-term

The company proposes an approach of conducting detailed design work for both of the two options to inform a decision, in 2026, on which is the most appropriate investment.

**The overarching finding was that a decision should be made sooner than 2026, to prevent wasting resources of time and money on designing plans. Overall, participants preferred the reservoir solution due to being more sustainable and having lower costs long-term.**

This section of findings about ‘securing water supply’ is organised in the following manner:



## Thoughts on new reservoir as a solution

Overall, participants highlighted numerous benefits of investing in a new reservoir as a solution.

Participants across all groups felt that the reservoir would be better value for money in the long-term, as it was mentioned there would be a lower cost of maintenance.

- *“In the long term it’s going to be a lower cost which is preferable” - Face-to-face (Barking, Essex)*
- *“It’s in the long term, as X said, it’s going to be lower cost. So, sometimes you have to forego something for something to be better” - Face-to-face (Barking, Essex)*
- *“The reservoir is easier... long-term, it’s cheaper” - Face-to-face (Barking, Essex)*
- *“If you’ve got a plan, start it now. After 20 years, expenses double” - Face-to-face (Barking, Essex)*
- *“[I would prefer] the reservoir, because you wouldn’t have that electricity usage that I think was mentioned by X, that leads to the higher running costs” – Online workshop 2 (Essex)*
- *“In the long term, the cost to them will be lower and it’s always going to be there so, for generations after us, it’s always going to be there... it [would] be easy to maintain as well” – Online workshop 2 (Essex)*
- *“I think in the long run those, the benefits of the reservoir outweigh the, the costs and the time and the trouble. So... it’s just a better option” – Online workshop 2 (Essex)*
- *“I went more for the reservoir. Because of yeah, the bigger outset costs, but the savings in the long run. So, we sort of, we always take a more long-term approach. So, I think I’m more edging towards that” – Online workshop 2 (Suffolk)*
- *“If the customers long-term are going to remain connected without any rationing, then I suspect the reservoir as described is probably sensible” - Online workshop (Additional Suffolk)*

It was also recognised, primarily by participants in Essex, that the environmental benefits contributed towards participants preferring this option.

- *“I think the reservoir is the best option because it’s got longevity” – Online workshop 2 (Essex)*
- *“A reservoir would be preferable in terms of environment” – Online workshop 2 (Essex)*
- *“I think the reservoir is the better option for sustainability” – Online workshop 2 (Essex)*

- *“It is much better for the environment, and it would look better so, like I say in the last [sessions] we’ve done, they said you can make them almost like tourist attractions in a way” – Online workshop 2 (Essex)*
- *“I’m fully for the reservoir because local wildlife will be positively influenced by that as well” – Online workshop 2 (Essex)*
- *“It could be a source of school trips. It’s more environmentally friendly, I suppose, than a plant with the chemicals and things” – Online workshop 2 (Essex)*
- *“I’d go for the reservoir. It’s ecologically better” – Online workshop 2 (Suffolk)*
- *“I feel that more of the natural way is going to be healthier and better” - Online workshop (Additional Suffolk)*

Referring to an earlier discussed topic of public value, participants felt that investing in a reservoir could add public value to the area.

- *“It’s life enhancing when you have a reservoir in an area. As it’s been mentioned, you can go for walks, and people appreciate, really appreciate it. And the whole factor of being of costing less energy in the future, and fewer emissions, it must be better” – Online workshop 2 (Suffolk)*
- *“I’m in favour of the reservoir because ... you can have things for the wildlife as well as a big reservoir... And you can go on walks” – Online workshop 2 (Suffolk)*
- *“I think it would be beneficial to the local region, as well as being cheaper in the long run, it could actually bring lots of benefits to the, to wherever it’s situated. So, for me, it’s the reservoir” – Online workshop 2 (Suffolk)*
- *“I think it’s always nice to have somewhere nice to walk or spend some time in nature. And also, if it’s cheaper in the long run, I think it just makes sense” – Online workshop 2 (Suffolk)*
- *“Last time... we talked about added value. I presume that is in the price of a reservoir so it could be maybe part of a nature reserve or have extra things for the community.... it’d be more sustainable long term, so I would prefer that option” – Online workshop 2 (Essex)*

One participant voiced one concern with the reservoir infrastructure, in relation to climate change and reservoirs drying out. They indicated they would wish to have further information on how Essex & Suffolk Water would address these issues in future.



- *“The only concern I have around the reservoirs is the publicity around climate change on how reservoirs have been drying up in 2022. Love the idea, always have done. But that’s my only concern. So, I said that with temperatures going up. But everything else there, apparently the water levels going down. So, for a mass pay out an exercise to go through this, how does the company see how they’re going to get around lower water levels?” – Online workshop 2 (Essex)*

## Thoughts on effluent plant as a solution

Generally, the high level of maintenance required for the effluent plant was considered to be a reason against this as an option for investment.

- *“If we’re talking about plants, like pumps, big pumps, and stuff like that. They will need to be changed, maintained and stuff like that. Reservoir works almost by itself, from my understanding” – Online workshop 2 (Essex)*
- *“Having a plant overall it is going to need to be maintained... the cost of maintaining it... probably was going to be felt on a shorter term... The reservoir may look like a bigger investment, but with much more benefits in the long run... environmentally, and... long-term” – Online workshop 2 (Essex)*
- *“I don’t like the idea of the technology bit. And putting stuff through the water. That just doesn’t feel right for me” - Online workshop (Additional Suffolk)*

One participant discussed the higher electricity usage required for the effluent plant as a disadvantage.

- *“It’s just that thing about the higher usage of electricity in the future that makes the effluent option seem less attractive to me ... Long term, if it uses electricity to keep going, this may be an issue in the future. We don’t know what’s happening in the long-term with electricity supplies... If running costs for the reservoir are said to be less than the effluent plant, then we’ll have a knock-on effect to customers’ bills, I presume... with the effluent plant, it may be just moving the problem to future generations” – Online workshop 2 (Essex)*

One participant felt that the effluent plant may look visually unappealing and lacked public value.

- *“Many years ago, I did a visit to our local water treatment plant in Norwich. And while it was very interesting, it's the most, one of the most boring places on the planet and so ugly. So, I think a reservoir wins hands down” – Online workshop 2 (Suffolk)*

## Thoughts on the design work of both options

Having considered both the advantages and disadvantages of investing a new reservoir, or an effluent plant, some participants agreed that detailed work would be needed for both options in order to ensure the correct decision would be made.

- *“It's high labour high costs versus a short return but in terms of disaster recovery, it seems nonsensical to not consider both options” - Online workshop (Additional Suffolk)*

However, participants felt that a decision needed to be made sooner than 2026. Subsequently, some participants suggested that a hybrid solution could be an alternative option, taking elements of both the reservoir and effluent plant. This was primarily discussed by participants in the Suffolk region, reflecting that securing water supplies would affect this water-stressed area more than the Essex region.

- *“I wonder whether you can come up with a hybrid solution, which would develop an implemented a small-scale process effluent cleaning process in the short term, and eventually transition to a reservoir in long term because that is the proper long-term solution, in my opinion” - Online workshop (Additional Suffolk)*
- *“Often, hybrid is the best way to caveat disaster recovery. And I think that's the best resolution in this situation, because neither of them solves the issue. Therefore, why not implement both technologies to address the issue?” - Online workshop (Additional Suffolk)*
- *“We need more of a hybrid set-up... I think if we don't look at a short-term solution, that's going to have a massive impact on industry and really think about that... My preference would be the reservoir, but the fact that it just can't be built in time, I think we need both in place” - Online workshop (Additional Suffolk)*




## Overall thoughts

There was a general agreement amongst participants that, overall, the reservoir had more benefits than the effluent plant, therefore the reservoir should be the approach taken. In addition, participants considered it best to invest in the new reservoir sooner than 2026 and felt that it would be a waste of time, money, and resources to conduct detailed design work for both options, due to the benefits of the reservoir.

- *“Just the reservoir. Why waste money on something else?” – Online workshop 2 (Essex)*
- *“It’s going to get to the point where we’re getting floods very frequently... that water is going to be used and stored in reservoirs or it’s going to flood the land. So, either reservoirs are built, and the water is made use of, or it’s going to go to waste” – Online workshop 2 (Essex)*
- *“It’s a waste of time... to waste that resource and time to try to figure out what is better. It makes economic sense to go for the reservoir” – Online workshop 2 (Essex)*
- *“You definitely have to look at both options. It needs to be contingencies for either one. And you need to know the benefits and the downfalls of both of them in detail in real depth. And my personal views, the reservoir is much, much better. It just feels more natural, you’ve got the rain, it comes down and you can store more, the more you can clean and store. I think it’s a better option. But you certainly need to be given information on both” – Online workshop 2 (Essex)*
- *“It’s not like it’s too far in the future. I think if the majority believes that’s the best way to go, go for that one” – Online workshop 2 (Suffolk)*
- *“Research costs so much money looking into it” – Online workshop 2 (Suffolk)*

The logo for 'explain' is located in the top left corner. It consists of the word 'explain' in a lowercase, sans-serif font, with a small square icon containing a document symbol to its right. The logo is white and set against a teal background.

explain

The background of the entire page is a teal-tinted photograph of a woman with long, wavy hair, smiling and looking to her left. She is wearing a light-colored, long-sleeved shirt with dark horizontal stripes. Her hands are clasped in her lap.

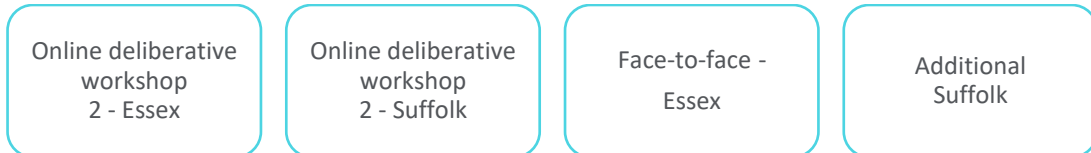
**“The goal is to transform  
data into information,  
and information into  
insight”**

**Results of ‘Compulsory Metering’**

In-depth findings of ‘Compulsory Metering’.

# Results of ‘Compulsory Metering’

The topic of ‘compulsory metering’ was discussed in the following groups, with participants who are customers of Essex & Suffolk Water:



It was explained to participants that Essex & Suffolk Water is classified as a **seriously water stressed area by the Environment Agency (EA)**, and that the company needs to reduce the amount of water used by customers to ensure a reliable water supply, reduce environmental impact, keep bills low, and be in line with Ofwat’s expectations to reduce usage to 110 litres per person per day by 2050. The 2021 yearly figure showed usage of 166 litres per person per day. Participants were told that 64% of Essex properties and 69% of Suffolk properties have a water meter.

This topic of discussion sought to consider whether participants would be happy to have water metering made compulsory, to save water, and whether participants thought smart metering, as part of compulsory meter roll out, would be beneficial or not.

**The overarching findings were that participants recognised the benefits of monitoring their water usage. Most participants considered compulsory metering fair, however some participants felt that individuals should have freedom of choice. It was suggested educating customers on the benefits of reducing water, and communicating in a transparent, positive way, may help customers become more accepting of this change.**

**Participants provided a split response regarding smart metering, as the benefits of monitoring was understood, but some participants stated they would struggle with technology, and felt some customers may have accessibility issues.**

This section of the report concerns the findings of research conducted on ‘compulsory metering’ and is organised in the following manner:



## Compulsory metering

The main benefit of compulsory metering was considered to be monitoring your own water usage. Participants felt that being on a water meter helps customers reduce their water use.

- *“We've had a water meter for many years, and it does focus your thinking about water use and what effect your usage is going to have” – Online workshop 2 (Essex)*
- *“I wish I had had a more frequent meter reading. It's every six months, and that's useful. So, I can see what my usage is and particularly, as Will talked about, with the pandemic. I was concerned that I was going to be using a lot more water than I would like to, both for what it would cost and for the environment” – Online workshop 2 (Essex)*
- *“It's beneficial because it does focus people's minds as to how much they're using” – Online workshop 2 (Essex)*
- *“Mine is indoors, which is really good. I can look at it every month or every few weeks, so I know exactly where it is” – Online workshop 2 (Essex)*
- *“Having a water meter, totally fine. Yeah. Then we're told the more we can keep track of how much we are using from the company” – Online workshop 2 (Essex)*
- *“I think we had that exact leak [issue] for a while and couldn't work out why our bills were so high, so that would solve the issue if we had that kind of smart meter. But also, I do like seeing everything and it's a bit of a challenge to try and get your bills down and usage down. So, in that sense... I would like a challenge. I like to see it all” – Online workshop 2 (Suffolk)*
- *“I think it's just better to have just that level of consistency and feel a bit more in control of it. I feel a bit more in control now I've got a smart meter because I've got a box and it tells me what I'm doing every day. And I don't worry so much about things that I used to think were massively expensive” – Online workshop 2 (Suffolk)*

Whilst recognising the benefit of monitoring usage, some participants suggested they would like a more frequent meter reading to feel even more in control of their water usage.

- *“It's great to see what my usage is but I would actually like to see that more frequently” – Online workshop 2 (Essex)*

Ensuring fairness was a key theme drawn out from the discussions around benefits of compulsory metering, as some participants referred to neighbours or friends who, in their opinion, waste or overuse water by regularly watering their gardens, for example.

- *“[Meters are a] benefit because you're keeping your bill down and not using a precious resource... A great friend of mine, who isn't on a meter... during the summer, she will have her water sprinkler day and night and she's not paying for any of that... [it's] not really fair” – Online workshop 2 (Essex)*
- *“The fairness as Lorraine said, for everyone to have meters, it would be great... I didn't actually realise that there were properties that don't” – Online workshop 2 (Essex)*
- *“We're sensible with water, so we don't waste it... But it is unfair if some people use as much water as they want and don't end up getting charged for it, so it does need to be more fair” – Online workshop 2 (Essex)*
- *“I think it's only fair that you pay for what you use” – Online workshop 2 (Essex)*
- *“I see so much waste now, among friends that are even metered. Taps left running... and I don't think people are aware that there is a situation” – Online workshop 2 (Essex)*

There was an overall agreement that the benefits of compulsory metering should be shared with customers in an educational manner, with reasons detailing the price impact per households of different sizes and in different areas, for example, as it was felt that the general public may not be aware of water shortages or what they can do to help.

- *“I don't think a lot of people realise, especially people that live on their own, that if they have a meter, they'd be paying far less...I live mainly on my own and friend of mine was paying a colossal amount and, on my advice, she got a meter fitted and her bill has gone down to less than half” – Online workshop 2 (Essex)*
- *“If it was sold on education basis, I think [the] majority of people would accept it” – Online workshop 2 (Essex)*
- *“I'd like to see proof that it does reduce the cost. That's what I would like to see. Not just different size houses in different sized areas” – Online workshop 2 (Essex)*
- *“If someone showed... how much it would reduce from a big house, a small house a flat... and the differences it would make and the percentages, then I think that would go quite a fair way to*

*pushing it forward a little bit... not just to me, but probably to many people, but no one's really, fully explained to me how much the reduction [in cost] is" – Online workshop 2 (Essex)*

- *"I don't think the majority of people, including myself before this evening, are aware of water shortages... It would definitely make people more responsible with their water if they were being metered" – Online workshop 2 (Essex)*
- *"Give the right information [at the] right time... start educating" – Face-to-face (Barking, Essex)*
- *"I can see families would get worried. If you've got a husband and wife and two [or] three children. That's a lot of baths and showers... I can think they would be worried that their bills might go up a lot" – Online workshop 2 (Suffolk)*
- *"if you look at... electric meters, perhaps where customers are informed how they operate, what they can do, and the benefits for the user... there has to be education regarding the subject. So that not only consumers understand that they are saving money, they're helping to the environment, but the ways in which they're doing that. Without delivering such education, they're going to be hesitant to install it" - Online workshop (Additional Suffolk)*

Participants felt that, if members of the general public were still against compulsory metering and wanted to remain unmetered, then further incentives such as individual penalties may need to be explored.

- *"I don't know if there's something you can do, like a campaign, but people are still not bothered that we could actually run short of water. And we need to really save water. People are still not bothered, honestly" – Online workshop 2 (Essex)*
- *"Those who are using excessive amounts of water for perhaps just a simple residential property. Not those with medical needs that might need frequent bathing or water therapy or anything like that, but just a normal home and just penalize them further... take every case individually, perhaps, so that you know they can appeal. But certainly, there has to be some kind of incentive to educate these people by force, if need be, because we're all suffering for it... compulsory metering is necessary and important, but it's not enough" – Online workshop 2 (Essex)*

Some participants referred to caring for the environment and being conscious of their water usage for environmental reasons, therefore favouring compulsory water meters.

- *“I thought everybody had water meters.... I know that it's made me a bit more conscious than I would if I didn't have...I care for the environment., so I'm always conscious about that” – Online workshop 2 (Essex)*
- *“Yes, I save water all the time for environmental reasons. I'm a great, I'm a great supporter of water aid. I think we just waste so much in this country. And I'm really quite mean with water” – Online workshop 2 (Suffolk)*

The few participants who did not favour compulsory metering tended to state this was due to their personal belief in freedom of choice, and their dislike of the word ‘compulsory’ as it implies a lack of choice.

- *“I don't like the word compulsory... I think it should be up to the individual whether they choose, and whether they have it or not to be honest with you... I understand the benefits. But I'm sure there's other sort of ways we can save money. There will be no baths or something like that, you know” – Online workshop 2 (Essex)*
- *“The word compulsory...it's never going to be sold on every single person” – Online workshop 2 (Essex)*
- *“Everyone should have a choice as to what they want to do... [The word ‘compulsory’] makes it a little bit... like your big brother’s telling you... I think, as a human being, you are entitled to have, ‘yes I do’, or ‘no I don’t’ [choices]” – Face-to-face (Barking, Essex)*

It was suggested that, when encouraging customers to take up metering of their water usage, that the word ‘compulsory’ is replaced with more positive words which do not imply a lack of individual choice.

- *“Some of us are actually capitalising on the fact that using compulsory is not good. But, for me with what we are seeing here with the figures, I think we can choose not to use compulsory, but I feel it's right to do it” – Face-to-face (Barking, Essex)*
- *“It's about the words... so, ‘this is something good for you, because of medical sciences and so on, and that we would recommend you take it’, then that you would get more people who would come forward. Rather than saying this is compulsory for you” – Face-to-face (Barking, Essex)*
- *“By making something compulsory, the use of terminology compulsory creates a standoffish point for some consumers” - Online workshop (Additional Suffolk)*



A few participants considered metering important but emphasised that ‘compulsory’ may not be for everyone, such as vulnerable individuals who may need to use more water for medical reasons.

- *“It needs to be flexible. I’ll answer it in two parts. Yes, smart metering is definitely necessary. I’m not sure if the word compulsory needs to be there because you have to think of people who are vulnerable, and who need a lot of water, but can’t afford to pay for it... Therefore, when corporate social responsibility comes into play, you would have to address a different tariff for the needy and for the most vulnerable. So, from that point of view, I can’t see the compulsoriness coming in as relevant. But a smart meter overall, is relevant, very important. As long as the meter is actually smart enough to break it down in different areas and tell the customer where the money is being spent, as far as water is concerned” – Online workshop 2 (Essex)*
- *“I think, if you do this, what you will do is you disadvantage, the larger families, maybe the families which are on low-income families, which have large number of children where the washing machine is going 24 hours a day... it seems to me to be hitting the minority in order to sort out the problem across the majority” - Online workshop (Additional Suffolk)*

## Smart metering

There was a general consensus that smart metering had benefits of monitoring usage, though smart metering may not be for everyone due to the technology involved and concerns of apparatus failure.

Most participants were in favour of smart metering primarily due to already having a gas and electricity meter which has helped them become more conscious of their usage.

- *“I’ve got a meter for the gas and electricity, and I’ve always been conscious of how much I’m using. But I can assure you, and I can’t be alone in this, I’m really watching when I put the central heating on... whether to use the microwave as opposed to the oven” – Online workshop 2 (Essex)*
- *“I’ve got a smart meter for our electric and it is good, because you can see exactly what we’re using every week, and we sort of noticed now that we’ve got the heating on it’s going up quite a lot. So, it’s interesting to see what you’re using” – Online workshop 2 (Essex)*
- *“It’s beneficial, in as much as you can see how much you’re using... it’s all very well having a meter. But if you don’t know how much you’re using on a daily basis, it’s not going to be effective” – Online workshop 2 (Essex)*



- *“It will save water. You'd learn how much you're using each day. The peaks and troughs, the high points in the day and the low points in the day, I suppose. That'd be the points. I think you'd probably learn from it” – Online workshop 2 (Essex)*
- *“We've had one, smart meters for gas and electric for a long time now and they really do make you look at what you're doing” – Online workshop 2 (Essex)*
- *“It makes people so much more aware of what they're actually spending. Because day to day, water just comes out of the tap, and you don't think about it, and then you get a big bill, and you deal with it. But since the energy meters have been installed in people's homes, people are so aware of it... they're more aware and they're cutting down” – Online workshop 2 (Essex)*
- *“[I've] definitely noticed with electricity and gas... you get a bit motivated to try and switch off... and save a bit more and I think that could have the same impact with water... it just really heightens your awareness of what you're using” - Online workshop (Additional Suffolk)*
- *“It might be an interesting idea to have it as a smart meter to monitor your water as long as it works the same way as we would for electricity and for gas” - Online workshop (Additional Suffolk)*

A secondary benefit was thought to be educating future generations of the need to save water.

- *“Smart meters in family homes are actually going to be a great investment in educating the younger generation, where there are going to be discussions in the home about bringing down the water usage and really stressing to the kids that these kinds of things are really important and have to be focused on. As they grow up, they're going to be more aware of things like that” - Online workshop 2 (Essex)*
- *“In-time education is the key, isn't it? ... Eventually, society will adapt to that. We've just got to be more aware of the damage we're doing by wastage” – Online workshop 2 (Essex)*
- *“You've got your problem-based learning. So, it provides us a scenario whereby the individual takes ownership of their own learning, by giving an app you can understand the behaviours, the patterns, what uses more water, what uses less water, where you're using the most. You don't need to be given information by a company; you have that first-hand experience of analysing” - Online workshop (Additional Suffolk)*

The main concern that participants had was about the apparatus not working correctly, due to either having no experience with smart meters for their other utility bills or for having poor experiences in the past with their smart meters which led to inaccurate readings

- *“I've got no experience with smart meters otherwise, but I've seen people say that sometimes they have inaccurate readings with their electricity, or gas meters... I'm just wondering if there's any scope for having the wrong reading” – Online workshop 2 (Essex)*
- *“My problem is, is my own experience with smart metering is that the machine or whatever the capabilities wasn't working correctly... when I had it looked at this end, it was actually picking up next doors' reading... if these machines are not 100% accurate, on the internal side, you're going to cause a lot of unnecessary stress on people that think they're using too much and start turning things off” – Online workshop 2 (Essex)*
- *“I have some concern over the technology. We were with dual energy with cooperative, which was smart, metered and worked perfectly fine. It was taken over by octopus and for two years they struggled with reading now on smart meters. They arranged for the smart meters to be replaced and, 15 months down the line, they can't read the new smart meters so, for over [3.5] years, octopus have been unable to read our smart meters” – Online workshop 2 (Essex)*
- *“The overriding objective is that smart meters are necessary. The reality... it's new technology... you have to go through the pain barrier to get it right so, from my point of view, I'd rather not suffer the pain barrier... When you got it right, I'll have it” – Online workshop 2 (Essex)*

Some participants stated that they would like to have their smart meter as a phone app, as it would allow them to feel as though they had greater control over their water usage and instant access to real-time information.

- *“When you have it on an app, you can track it a bit more, and feel more in control of it, and you notice what's saving you more money... day to day” - Online workshop (Additional Suffolk)*

However, participants generally preferred a smart meter to be implemented in a similar way to electricity smart meter, as a visual aid in the home, and felt this would help prevent reluctance from customers who lack confidence with technology or do not have smart phones for app accessibility.

- *“If you have a smart meter in the home, it makes people more aware of it... When you have it on a smart app on your phone, unless you're curious yourself, you have to go into your password,*

*you have to log in, you have to click a few settings, before you get to that data. When that data is right in front of you visible within the home, it makes it more accessible not only for people with no technology access, that perhaps haven't got the education to use the technology” - Online workshop (Additional Suffolk)*


- *“I don't have smartphones, so it's not going to work for me... I'm not very good with anything [technology wise] so, I've got a laptop and I struggled to use it sometimes when it goes wrong... I'm a bit of dinosaur, I'm afraid. So that wouldn't work for me. But I can see that it would be jolly useful, like the way that the electricity smart metres are” – Online workshop 2 (Suffolk)*
- *“You do worry that maybe people who might not be technologically savvy... you don't want them to feel intimidated by it” – Online workshop 2 (Suffolk)*
- *“Having a meter and a visual aid in the home is really helpful.... Getting a smart phone and tracking it that way, he [Dad] is not going to do” - Online workshop (Additional Suffolk)*

Some participants felt that they wouldn't be in favour of smart metering as they were already environmentally conscious and felt they were already taking as many steps as possible to reduce their water usage. However, these participants recognised that there may be a benefit in smart metering by being able to detect leaks and in encouraging the general public to reduce their water usage.

- *“I don't like smart meters because... I'm saving water when I'm brushing my teeth; I don't run the water as with the tap of... if my meter can see that and the smart meter can detect these little leaks... maybe that will change my mind. But to be honest with you, I don't like technology. I'm too set in my ways” – Online workshop 2 (Essex)*
- *“We've got everything down to the bare minimum that we can do anyway [for water usage], so I can't see where a smart metre would really help because there's nothing else we can turn off... [but] we've got to encourage everybody to use less, obviously” – Online workshop 2 (Suffolk)*
- *“I'm not going to change my attitude... I care about the environment. I recycle. I do all that. So, whether I have a smart meter or not, I'm not going to change the way I use water– Online workshop 2 (Essex)*
- *“The other thing is education... Sometimes it's something you don't even think about that will save you money” - Online workshop (Additional Suffolk)*
- *“Education is paramount, because it can be free” - Online workshop (Additional Suffolk)*
- *“If we are running short [on water], the education would emphasize the importance of being conservative and saving it” - Online workshop (Additional Suffolk)*

The logo for 'explain' is located in the top left corner. It consists of the word 'explain' in a lowercase, sans-serif font, with a small icon of a document with a speech bubble above the letter 'i'. The logo is white and set against a teal background.

explain

The background of the slide is a teal-tinted photograph of two women sitting at a table, engaged in conversation. The woman on the right is in the foreground, looking towards the woman on the left. The woman on the left is smiling and looking back. The setting appears to be a casual meeting or interview. The teal tint is consistent across the entire slide.

**“Research should never  
be just for knowledge – it  
should be for progress”**

## **Conclusions**

A holistic review of the actionable insights.

# Conclusions

## Overall learnings

Cost is an important driving factor in assessing each of the topics discussed, but not as important as preventing service failure in future and ensuring water supply

A cost-benefit analysis approach was taken for many topics when deciding investment alongside keeping customer bills as low as possible

Caring for future generations was a recurring theme

There was a general preference for nature-based solutions rather than engineering solutions due to an awareness of needing to protect the environment

## Conclusions per topic

When considering **asset health**, most participants preferred Northumbrian Water / Essex & Suffolk Water to take the option two, the risk-driven approach. Primary reasons for this were the importance of water and for caring about future generations, however participants also discussed how expenses rise, leading to an overall preference for maintaining and repairing issues now to prevent service failure.

**Public Value** was felt to be important overall, and participants generally agreed investing in public value would be worth a small increase in their bill. Reasons underpinning this included health, wellbeing, and environmental reasons, primarily. Participants were clear, however, that the increases in bills should be communicated in a transparent manner, with explanations of exactly what investments will be made.

Discussed as part of **statutory obligations, storm overflow** investment was important to customers as they recognised the importance of reducing spills. Participants were unable to come to a clear decision of whether they would prefer Northumbrian Water / Essex & Suffolk Water to take an approach based on engineering solutions or based on nature-based solutions. However, most participants highlighted that there were benefits and detriments to both solutions, therefore suggested they would prefer a hybrid approach which would ultimately create a lower-cost, nature-based solution.

As part of **statutory obligations, nitrogen** removal from wastewater treatment works in Lindisfarne and Teesmouth was discussed. Whilst the negative impact on the environment led participants to generally agree that removal of nitrogen would be important, participants were concerned about the

high costs and low impact of the engineering solutions. Therefore, there was an overall preference of challenging Defra, seeking alternative solutions, and using catchment, nature-based solutions to have a lower cost and higher impact. If a hybrid approach could be taken, participants felt that, using cost-benefit analysis, engineering solutions in only the Teesmouth area at the Bran Sands wastewater treatment works would be best.

The overarching finding, when discussing **bill profiles** was that steady increases would be preferred by most participants, due to the cost-of-living crisis and rising of other bills, thereby making it easier to budget and manage smaller increases.

Reducing **leakage, as part of statutory obligations**, was considered very important to participants. However, there was no firm result of participants' view on whether Essex & Suffolk Water should accept the reduction target of 50% to promote high standards, or whether to reduce their target due to outperforming the current target.

When discussing **statutory obligations, of securing water supply**, participants had an overall preference of the reservoir solution due to this being more sustainable and having lower costs long-term, in comparison to the effluent plant solution. Participants additionally felt that conducting detailed design work of the two options was not needed and was felt to be a waste of time and money, thereby adding to the view that the decision should be made sooner than 2026.

Participants had somewhat mixed views about **compulsory metering** but leaned in favour of this due to the benefits of monitoring usage, which was thought to help customers focus on reducing their water usage. However, participants felt that this would be better received by customers if the word 'compulsory' was amended to more positive wording which doesn't imply lack of choice. In addition, participants thought customers need educating and provided with further information around the benefits of water meters when tailored to their household. It was felt necessary to remain flexible due to some customers having medical reasons for greater water usage, and some customers lacking confidence with technology.



The logo for 'explain' is located in the top left corner. It consists of the word 'explain' in a lowercase, sans-serif font, with a small square icon containing a white 'e' to its right. The logo is set against a white speech bubble background.

explain

The background of the entire page is a photograph of a woman with long, wavy hair, smiling warmly at the camera. She is sitting at a desk with a laptop in front of her. The image is overlaid with a semi-transparent teal color.

**“Quality is not an act; it is  
a habit”**

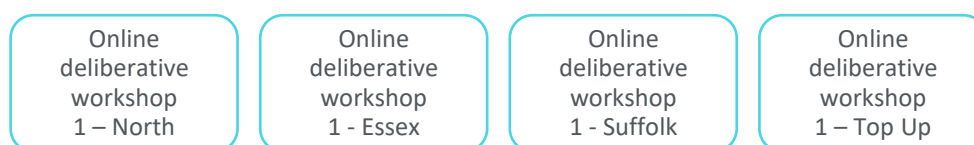
## **Appendices**

Supporting documentation can be found in this section.

# Appendices

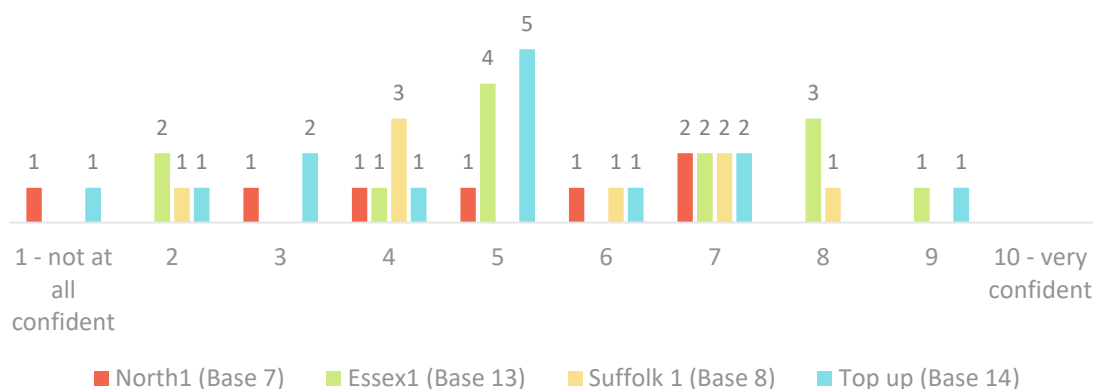
## Appendix A: Understanding of NWG's role

The extent to which participants were confident they understood Northumbrian Water / Essex & Suffolk Water's role was discussed in the following groups:



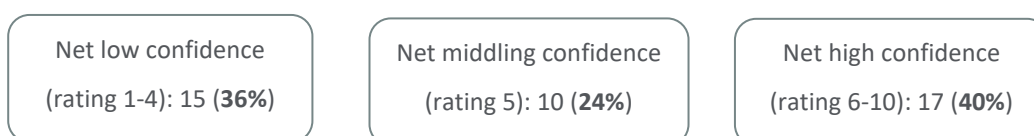
### Level of understanding NWG's role

How confident are you that you understand the role of Northumbrian Water or Essex & Suffolk Water, on a scale where 1 is not at all confident and 10 is very confident? (Base 42)



**Overall mean confidence rating for all groups: 4.2 out of 10**

Lower level of confidence ← → Higher level of confidence





Please note the total number of participants and low base sizes per region. However, the results of the mean confidence rating has been presented below, per region:

<b>Mean confidence rating per region</b>			
<b>North (Base 7)</b>	<i>Top up (Base 14)</i>	<i>Suffolk (Base 8)</i>	<i>Essex (Base 13)</i>
<b>4.7 out of 10</b>	<i>4.8 out of 10</i>	<i>5.3 out of 10</i>	<i>5.8 out of 10</i>

Further research would be needed, but initial mean confidence scores suggest that customers' in the Essex & Suffolk region have a higher level of confidence than customers in the Northumbrian region.

### NWG's role explained

Following explanation of NWG's role both as water and wastewater providers as Northumbrian Water, and as wastewater providers in Essex & Suffolk Water, the following points were briefly discussed by participants who were **Northumbrian Water customers**:

One participant stated that, **upon reflection, they would have increased their score** as they did understand Northumbrian Water's role but had initially given a lower response.

□ *"I'd probably have increased my score from seven up to about eight or nine then... I thought I knew the answer but wasn't sure of what I didn't know" – Online workshop 1 (North)*

One participant highlighted that they were unaware of Northumbrian Water's role in **programmes to turn sludge into energy**.

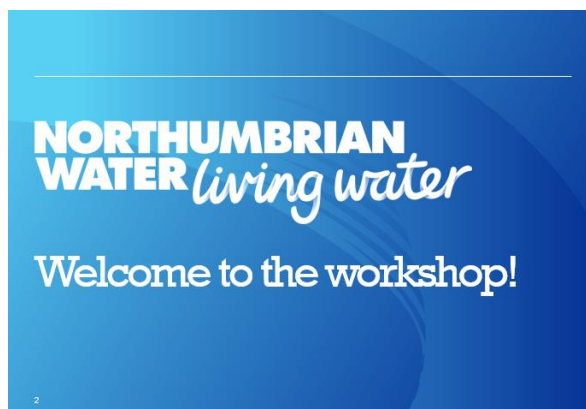
□ *"The sludge for energy. I didn't realize you were involved in any programs like that here in the North East" – Online workshop 1 (North)*

Another participant had not realised the extent of the **role of the customer voice** in Northumbrian Water's business plan.

□ *"It seemed to say that the business plan is developed from what we as customers tell you... I think that's a far greater weighting to the customers that really exists" – Online workshop 1 (North)*

## Appendix B: PowerPoint used in Online Deliberative workshop 1 – North

Topics covered were **Asset Health** and **Public Value**

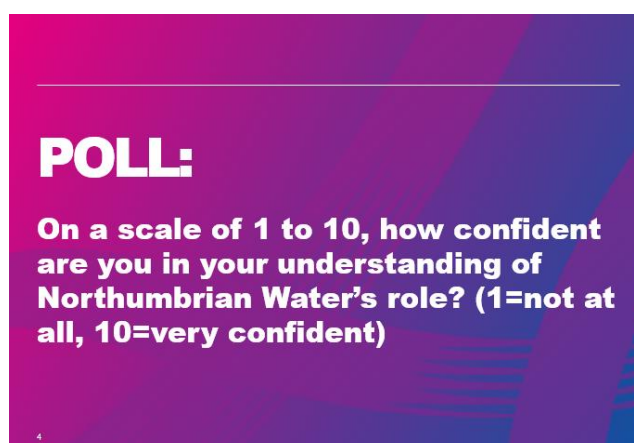


### TODAY WE WILL...



1. Learn about Northumbrian Water's role and responsibilities
2. Learn about the business plan that Northumbrian Water is developing
3. Consider some of the challenges Northumbrian Water has in developing its plan
4. Provide your feedback to help shape how Northumbrian Water approaches these challenges

3

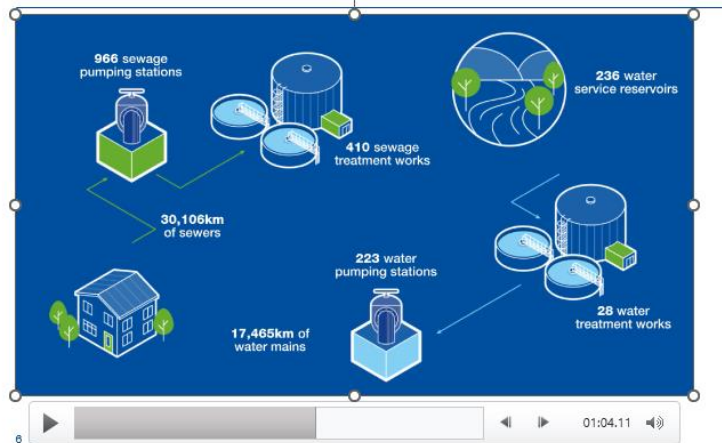


# LET'S GO BACK TO THE BEGINNING...

## WHO IS NORTHUMBRIAN WATER, AND WHAT DO THEY DO?

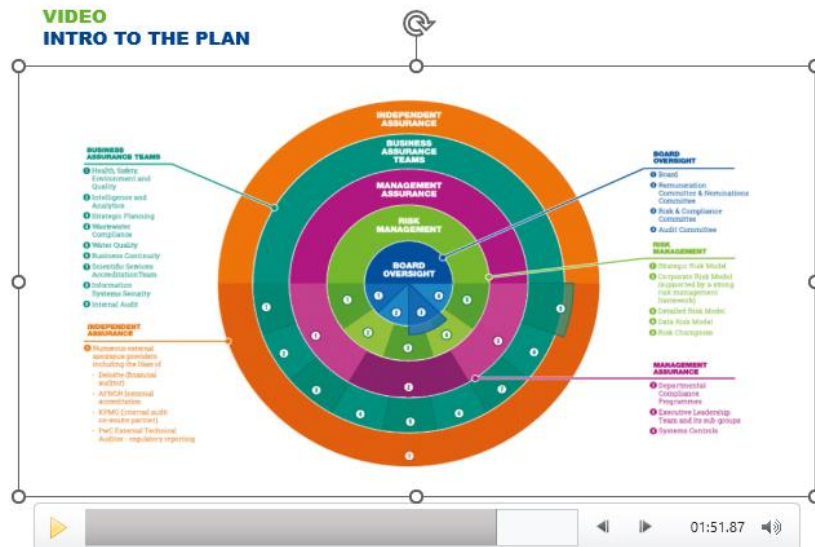
VIDEO

### INTRO TO NORTHUMBRIAN WATER



## WHAT IS THE NORTHUMBRIAN WATER BUSINESS PLAN?

**VIDEO**  
**INTRO TO THE PLAN**



**WHAT'S NEXT**  
**INTRO TO TODAY'S DISCUSSION**

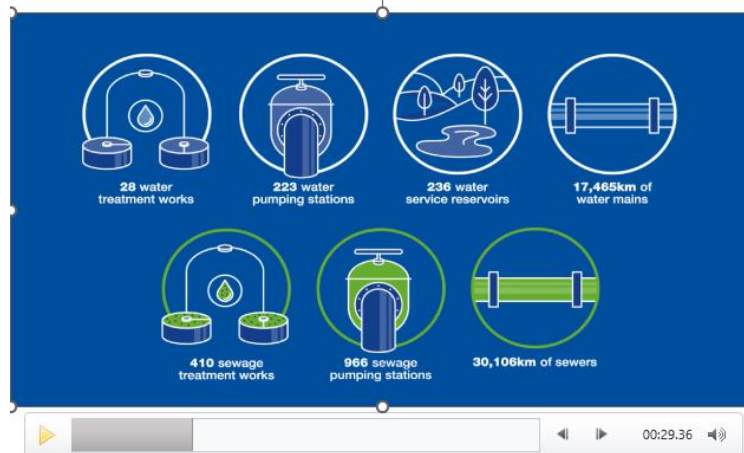
- You heard in the video that Northumbrian Water has a number of challenges in developing their plan
- Because of those challenges Northumbrian Water is expecting that from 2025 customers will experience a bill increase
- We want to talk to you today about some of the challenges driving this bill increase



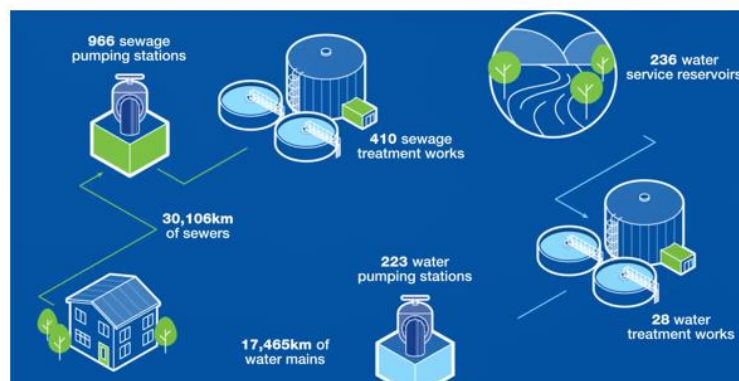
11



**VIDEO**  
**INTRO TO ASSET HEALTH**



**WHAT IS AN ASSET?**



14

**WHAT IS AN ASSET?**

- Think about owning a car
- By taking it for its annual service, changing its oil etc, you can keep it **working well for longer**
- The longer you have the car, the more likely it is something might need fixed or replaced which **will cost you money**
- There will be a tipping point where you decide that its not worth fixing it anymore and it **makes more sense financially** to trade it in for a new one
- Northumbrian Water make these same decisions about their assets and we want to talk to you today about finding the right **tipping point** for investment in assets.



15

# TELL US...

- ✓ **What is your usual approach to financial decisions like this in your own home?**
- ✓ **Think about your car, house repairs or something else?**
- ✓ **In what circumstances would you choose to maintain to keep costs down as long as possible? In what circumstances would you replace, at a higher cost, to ensure reliability?**

16

# THE CONDITION OF NORTHUMBRIAN WATER'S ASSETS

## THE CONDITION OF NORTHUMBRIAN WATER'S ASSETS

- The condition of our assets is closely managed, so we can make the right decisions on when an asset needs to be maintained or replaced



18

## THE CONDITION OF NORTHUMBRIAN WATER'S ASSETS

- We use modelling and condition data to determine the tipping point, like you do for your car, to provide information around when it is more cost effective to replace an asset, rather than continue to maintain it
- This information feeds into the decision making around investment in our assets to ensure we maximise the benefit of every pound spent.



20

## TELL US...

- ✓ **Has anyone ever experienced an issue with the water or wastewater supply?**
- ✓ **What was it?**
- ✓ **How were you impacted?**
- ✓ **How did it make you feel?**

22

## THE COST OF LIVING CRISIS

- What all of our systems and modelling don't do is consider wider issues such as the cost of living crisis in our decision making
- For example, back to the car analogy, there may be times in your life where:

You are feeling more financially comfortable and so the reliability of your car is most important. You could take a risk and keep maintaining your car hoping it will last a couple more years, but the thought of breaking down on the motorway on the way to work means you are happy to spend now to replace it.

You are more conscious of your spending, and so you don't want a big outlay right now.

And so you keep maintaining your car as long as you possibly can until it fails and you are forced to buy a new one.

Your bills are spiralling out of control and you have to prioritise your spending. The car now has a slow puncture and you know you need a new tyre, but you have prioritised spending on other things. It isn't ideal because you have to pump the tyre up every 50 miles but it is manageable for now.

23



# TELL US...

- ✓ Can you think of an example where your approach to your finances has changed because of an outside factor?
- ✓ How about in the last six months?

24

## THE CONDITION OF NORTHUMBRIAN WATER'S ASSETS

- As you heard in the earlier video, Ofwat decides what investment we can make
- In previous price reviews, Ofwat has limited the amount we can invest in our network, to help keep bills down for customers
- The amount we have been able to invest doesn't take into consideration the remaining life of our asset base
- We have disagreed with this position because it feels like we are "kicking the problem down the line" which needs to be paid for in the future
- Without investing more between 2025 and 2030, the risk of a service failure happening will increase, particularly considering future challenges such as climate change
- This impacts on what future generations will need to pay
- However, we are also conscious of the cost of living crisis

Oldest water main 1870

Oldest sewer 1870

Oldest water treatment works structure 1853

Oldest sewerage treatment structure 1935

Oldest water pump 1930

25

## INVESTMENT IN ASSET HEALTH IN THE PR24 BUSINESS PLAN

- In the 2025 to 2030 business plan we have a choice to make

Option 1: Cost driven	Option 2: Risk driven
Keeps bills lower from 2025 to 2030 helping with affordability	Increases customer bills
Increased risk of service failure	The risk of service failure is stable
Bills may be higher in the future, as the problem is "kicked down the road" and is paid for by future generations	The problem is dealt with and paid for now, also protecting future generations

26

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## TELL US...

- ✓ **What are the benefits of option 1?**
  - ✓ **Do you think it is fair for future generations?**
- ✓ **What are the benefits of option 2?**
- ✓ **What route would you prefer Northumbrian Water take?**
- ✓ **If you were the Chief Executive of Northumbrian Water , what would you do?**

28

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## ZOOM POLL

- ✓ **Which option do you think Northumbrian Water should take?**

29

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## TOPIC 2: PUBLIC VALUE

## WHAT IS PUBLIC VALUE – AN EXAMPLE

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- Public value describes the value that an organisation or activity contributes to society
- For example, if I was building a new housing estate, I could take a “no frills” approach and just concentrate on the bricks and mortar
- However, I could also look at how by building the housing estate I can add value to the local area



31

## TELL US...

- ✓ **Think about the housing estate analogy, how could I add more value than bricks and mortar when building an estate?**
- ✓ **Would investment like this be important to you in your local area?**

32

## PUBLIC VALUE TO NORTHUMBRIAN WATER

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- Northumbrian Water can think about how they add public value through their investment
- It might not always be the cheapest approach, however there are wider benefits to society
- The following video demonstrates how Northumbrian Water consider public value when making investment in reservoirs...



33

## PUBLIC VALUE TO NORTHUMBRIAN WATER



## TELL US...

- ✓ **What do you think about the concept of public value?**
- ✓ **Is it important to you?**
- ✓ **Are there any benefits that are particularly important to you? E.g. environmental, social, improvements for visitors? Why?**

35

## PUBLIC VALUE, AN EXAMPLE FROM THE WATER SECTOR

- A relevant public value example for Northumbrian Water is around the investment they make to rivers and coastlines
- As a minimum Northumbrian Water has a responsibility to ensure that the water they release into rivers and seas meets quality standards
- However they can go further...



38

## PUBLIC VALUE, AN EXAMPLE FROM THE WATER SECTOR

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- Northumbrian Water could create bathing rivers
- For example, in Ilkley the Environment Agency, working with partners including the local water company, has created the first designated river bathing water site in England
- This has involved improvements to water quality and ongoing monitoring of water quality



37

## TELL US...

- ✓ **What are the benefits of investment like this?**
- ✓ **Is the availability of designated bathing waters important to you?**
- ✓ **Would you like to see more designated bathing areas in the region?**
- ✓ **Would you support Northumbrian Water in making investments like these?**

38

## POLLS:

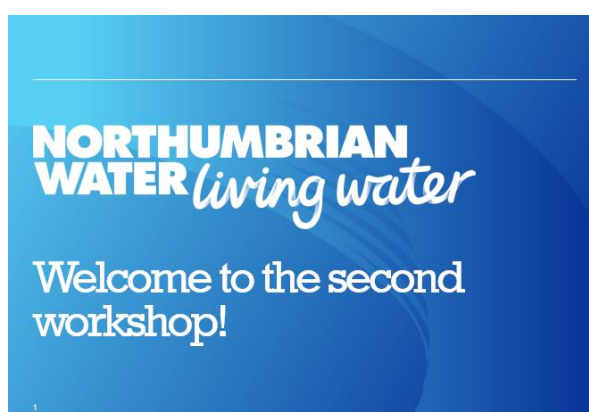
**What did you think of tonight's session?**

40



## Appendix C: PowerPoint used in Online Deliberative workshop 2 – North

Topics covered were (1) **Statutory Obligations: Storm Overflows**, (2) **Statutory Obligations: Nitrogen**, and (3) **Bill Profiles**



### TODAY WE WILL...



- In our last session you learnt that Northumbrian Water has a number of challenges in developing their plan
- Because of those challenges Northumbrian Water is expecting that from 2025 customers will experience a bill increase
- We want to talk to you today about some more of the challenges driving this bill increase

2



**INTRO**  
**STATUTORY OBLIGATIONS**

There are some new things that Northumbrian Water may be required to do by law

- These are all things the government have said we have to spend money on, and if we don't we could be fined
- To meet these regulations we need to significantly change the way we operate
- These drive an increase in customer bills from 2025
- We want to talk to you today about two of these environmental obligations and whether you think we should push back to the government on the implementation of these statutory requirements



4

**INTRO**  
**STATUTORY OBLIGATIONS (NW)**

There are two investments directly related to statutory obligations:

Investment in the wastewater system to reduce the use of Storm Overflows

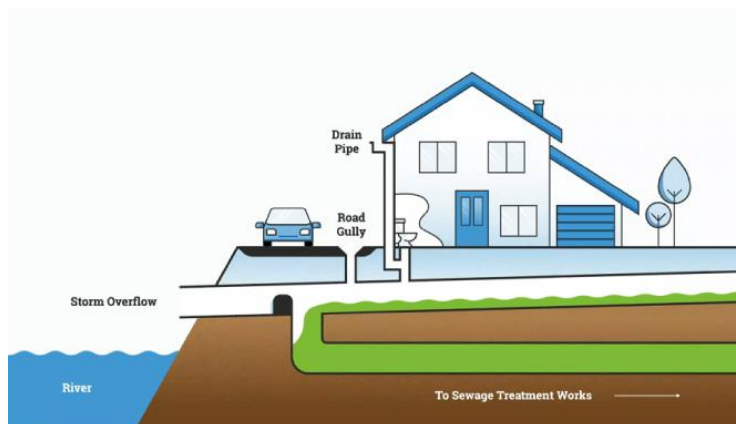


Investment in waste water treatment processes to remove nitrogen for the benefit of the environment



5

**STORM OVERFLOWS**  
**WHAT IS A STORM OVERFLOW?**





**STORM OVERFLOWS**  
**WHAT IS SEWER FLOODING**

At times of heavy rainfall sewers can reach full capacity and there's a risk that rainwater and wastewater can be forced back into customers' homes.



Storm overflows act as a release valve, releasing this heavily diluted mix back into the environment, protecting homes from flooding.

The government has asked all water companies to reduce the use of storm overflows, because of the environmental damage they can cause. We agree that we need to address this issue.

7

**STORM OVERFLOWS**  
**WHAT IS THE IMPACT OF A SPILL**



When a storm overflow discharges the spill contains sewage and rainwater.

Not every spill has an environmental impact.

Bacteria contained in a spill is likely to die very quickly after entering river or sea water, and the concentration of bacteria will be diluted.

Bathers and other water users in England are impacted by 8% of storm overflows that discharge near a designated bathing water.



8

**STORM OVERFLOWS**  
**THE NORTH EAST PICTURE (2021)**



- There are over 15,000 storm overflows in England.
- There are over 1,500 storm overflows in our region which have the potential to cause harm to the natural environment when they spill.
- Northumbrian Water storm overflows spilled an average of 25 times each in 2021. This is lower than the England average of 29.
- **Government requirements are that we must reduce the average number of spills per storm overflow to:**
  - 20 by 2025
  - 10 by 2045

**STORM OVERFLOWS  
AN ENGINEERING APPROACH**



**The cheapest way to end the use of storm overflows**

- We will build concrete tanks underground to temporarily store rainwater.
- Rainwater held in the tanks will be slowly released into the wastewater network where it will make its way to the sewage treatment works.
- In a small number of places rainwater will be diverted straight into watercourses.

**STORM OVERFLOWS  
A NATURE-BASED APPROACH**



**A nature based-way to end the use of storm overflows**

- We will use natural solutions, where possible, to store rainfall. This will include things like ponds, wetlands, swales and planters.
- These solutions take longer but are better for the environment.
- They also require more investment.




# TELL US...

- ✓ How important is reducing the use of storm overflows to you?
- ✓ What do you think of the two options to reduce the use of Storm Overflows:
  - ✓ Engineering solutions – what are the benefits? What are the downsides?
  - ✓ Nature based solutions – what are the benefits? What are the downsides?
- ✓ Do you think Northumbrian Water should:
  - ✓ Abide by the government targets, making whatever investment is needed?
  - ✓ Lobby the government for a later target to allow the use of nature based solutions?

14

**NITROGEN**  
**AN INTRO**

A close-up photograph of a person's hand pressing the silver flush handle of a white toilet. The background shows white tiled walls.

When we flush the toilet, the human waste (poo and wee) we've produced enters the sewerage system.

Human waste naturally contains different types of nutrients, bacteria and chemicals.

Northumbrian Water's job is to clean wastewater, removing any harmful nutrients, bacteria and chemicals. The recycled water is then returned to the natural environment (rivers or the sea).

15

## **NITROGEN** **NORTHUMBRIAN WATER**

One of the nutrients human waste contains is nitrogen.

We do not remove nitrogen from wastewater as part of the wastewater treatment process. This means that the nitrogen humans produce is released into rivers or the sea at the end of the wastewater treatment process.



16



**NITROGEN  
OTHER SOURCES**



Nitrogen in rivers or the sea can come from:

- Human waste that is treated at a private (not Northumbrian Water) wastewater treatment works.
- The waste livestock produce and from fertiliser spread on land to help crops grow.
- Wildlife (birds and animals) which defecate in these environments.
- Industrial air and water emissions.



**NITROGEN  
IMPACT ON THE NATURAL ENVIRONMENT**

If too much nitrogen, from any source, gets into rivers or the sea it can cause algae to grow.

Algae consumes lots of oxygen and blocks sunlight from reaching underwater plants and creatures such as invertebrates, which then die.

This can cause harm to birds, as their food source in the mudflats is no longer there.



18

**NITROGEN  
THE CHALLENGE**

- Two coastal areas in the north east are classed as in **unfavourable condition due to excess nitrogen**.
- These areas have both been designated by Natural England for **nutrient neutrality** – this means that before any more development / housebuilding can take place, developers must mitigate for any further nitrogen that increased population growth adds to wastewater.
- Northumbrian Water has been asked to support Defra's work in this area by removing nitrogen from sewage during the wastewater treatment process.



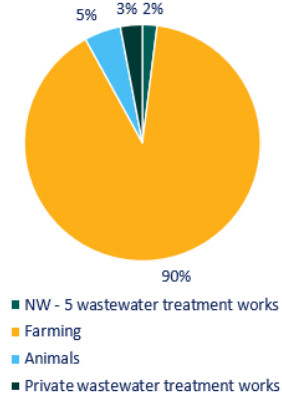
19

**NITROGEN  
LINDISFARNE**

The cleaned water Northumbrian Water releases into rivers or the sea at the end of the wastewater treatment process accounts for around 2% of nitrogen in the rivers and sea surrounding Lindisfarne.

It will cost £51m to remove nitrogen at five wastewater treatment works.

**Lindisfarne – sources of nitrogen**



20

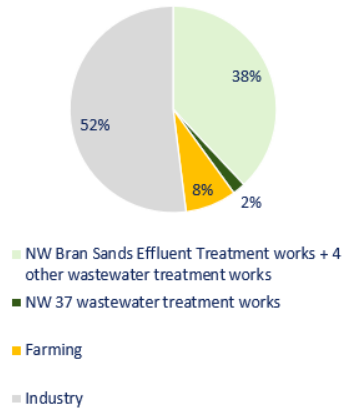
**NITROGEN  
TEESMOUTH**

The cleaned water Northumbrian Water releases into rivers or the sea at the end of the wastewater treatment process accounts for around 40% of nitrogen in the rivers and sea surrounding Teesmouth.

It will cost £212m to remove nitrogen at Bran Sands Effluent Treatment Works and four other wastewater treatment works.

It will cost £390m to remove nitrogen at 37 inland wastewater treatment works.

**Teesmouth – sources of nitrogen**



21

**NITROGEN  
ALTERNATIVE CATCHMENT BASED OPTIONS**

There are alternative options to tackling nitrogen, by restoring natural environments that remove the nitrogen directly from rivers and seas such as:

- Restoring seagrass
- Restoring oyster beds
- Seaweed & Shellfish farming
- Wetland creation (inland)
- Working with agriculture & industry

Benefits would be wider than just nutrient neutrality, and could include:

- Lower carbon emissions
- Trapping carbon in nature
- Biodiversity net gain
- Protection of birds
- Partnership working
- Job creation



22

**NITROGEN**  
**CAPITAL INVESTMENT COSTS – ENGINEERED SOLUTIONS**

	Total Cost	% of nitrogen from NW sources	% increase to each customer's bill	£ increase to an average customer bill (£365)
<b>Lindisfarne</b> Five wastewater treatment works	£51m	2%	0.4%	£1.40
<b>Teesmouth</b> Bran Sands wastewater treatment works and four coastal wastewater treatment works	£212m	38%	1.6%	£5.80
<b>Teesmouth</b> 37 inland wastewater treatment works	£390m	2%	2.9%	£10.67
<b>TOTAL</b>	<b>£653m</b>	<b>-</b>	<b>4.4%</b>	<b>£17.87</b>

23

**NITROGEN**  
**CAPITAL INVESTMENT COSTS – CATCHMENT BASED SOLUTIONS**

These costs would be shared between catchment partners, such as the Environment Agency, and would have less impact on Northumbrian Water customers' bills than engineered solutions.

Some example costs:

- 2,000 hectares of seaweed farming at £45k per hectare.
- Salt marsh restoration for the area identified is £12m
- £1m to do all the other sea grass oyster and mussel work
- A wetlands for Greatham would be approximately £2m.

**Partners would cover parts of these costs, so our customers wouldn't fund the full amounts.**

24

**NITROGEN**  
**THE QUESTION**

- We want to understand from you whether you:
  - Agree with Defra's position around the removal of nitrogen from NW wastewater treatment works
  - Feel like we should challenge Defra and take a different approach to try and tackle the problem



26

# TELL US...

- ✓ How do you feel about the removal of nitrogen from wastewater? Do you think it is important? Why?
- ✓ Do you think Northumbrian Water should challenge Defra on this statutory obligation? Why?
- ✓ What is your preferred approach where NW should deliver improvements (engineered vs catchment based solutions)? Why is this?
- ✓ Once we have discussed this, we will ask you to vote on each potential solution.

27

## TOPIC 3: BILL PROFILES

### **BILL PROFILES** **INTRO**

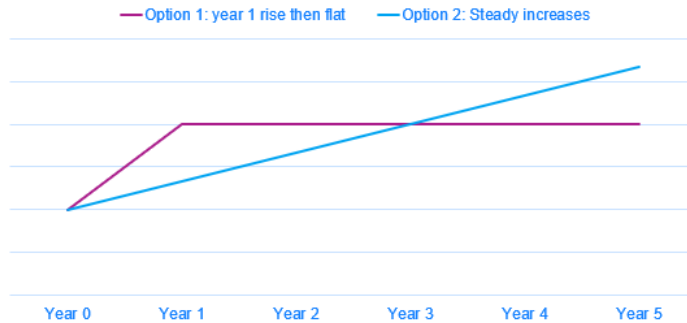
- As you know it is likely that from 2025 water and wastewater bills will increase to fund the various investment required that we have covered over these sessions
- We want to understand more about how you would prefer to see any increase reflected in your bill



29



**BILL PROFILES**  
**FLAT VS INCREASES**



In both these options the total amount you pay is the same

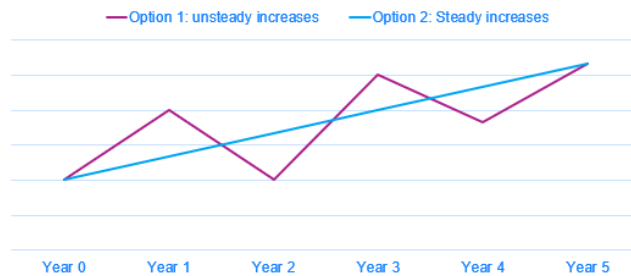
30

# POLL VOTE...

- ✓ Which do you prefer:
  - ✓ Year 1 rise then flat
  - ✓ Steady increases

32

**INCREASES: STEADY OR UNSTEADY**



In both these options the total amount you pay is the same

33

---

# POLL VOTE...

- ✓ Which do you prefer:
  - ✓ Unsteady increases
  - ✓ Steady increases

35

---

# POLLS:

**What did you think of tonight's session?**

37

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# THANK YOU

## Appendix D: PowerPoint used in Face-to-face workshop – Essex & Suffolk

Topics covered were (1) **Statutory Obligations: Leakage**, (2) **Statutory Obligations: Securing Water Supply**, (3) **Bill profiles**, and (4) **Compulsory Metering**



### TODAY WE WILL...



- In our last session you learnt that Essex and Suffolk Water has a number of challenges in developing their plan
- Because of those challenges Essex & Suffolk Water is expecting that from 2025 customers will experience a bill increase
- We want to talk to you today about some more of the challenges driving this bill increase

2



**INTRO**  
**STATUTORY OBLIGATIONS**

---

**There are some new things that Essex & Suffolk Water may be required to do by law**

- These are all things the government have said we could have to spend money on, and if we don't we could be fined
- To meet these regulations we could need to significantly change the way we operate
- These could drive an increase in customer bills from 2025
- We want to talk to you today about two of these environmental obligations and whether you think we should push back to the government on the implementation of these statutory requirements



4

**INTRO**  
**STATUTORY OBLIGATIONS**

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**There are two investments directly related to statutory obligations:**

**Investment to reduce leakage from the water network**



**Investment to secure water supplies in Suffolk**



5

**LEAKAGE**  
**INTRODUCTION**

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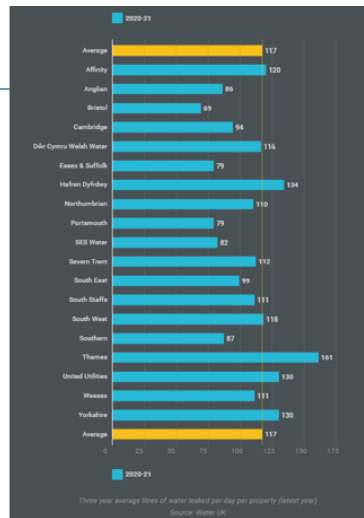
- A proportion of the water that passes through our pipes and network is lost to leakage
- Reducing leakage will :
  - Contribute to maintaining reliable and resilient supplies in the long term as less water is lost on the way to our homes and businesses
  - Benefit the environment by reducing the amount of abstracted and needed to treat, water thereby reducing the amount of chemicals and energy used to treat and transport water



6

## LEAKAGE PERFORMANCE

- We measure leakage in the number of litres of water leaked per property per day – this is taking the total amount of water leaked per day (in megalitres) and dividing it by the number of properties in that region
- **A full bath contains about 80 litres of water as reference**
- Let's look at some comparative figures...



7

## LEAKAGE REDUCING LEAKAGE

- In previous years, water companies reduced leakage to the point in time where it stopped being cost effective to do so
  - When it would cost more to fix the leaks than it costs to just let the water leak and treat more water to replace it
- For this reason in previous years the level of leakage stabilised amongst water companies
- However, due to the environmental impact of leakage, the industry has changed its position and water companies have begun to drive leakage down further in the shorter term, with ambition to continue into the long term
- In Essex and Suffolk we were already performing ahead of the industry, prior to this change in position



8

## LEAKAGE THE CHALLENGE

- Our regulator has asked all water companies to reduce leakage by 50% by 2050 regardless of their current performance.
- We have already made significant investment to reduce leakage and are one of the industry leaders.
- It is not practical for us to reduce leakage by 50% because of the extent and cost of work that would be required involving replacing a large proportion of our network.
- We have challenged whether we should be expected to make the same reduction in leakage given our already low levels of leakage, especially considering this investment is paid for by our customers.
- We therefore plan to reduce leakage by 40%.



9

# TELL US...

- ✓ **How do you feel about leakage? Is it important to you that ESW make investment in this area?**
- ✓ **Do you think ESW should be expected to reduce leakage by the same proportion as other water companies? Why?**

11

## SECURE WATER SUPPLIES IN SUFFOLK INTRO

All water companies produce a **Water Resources Management plan** which lays out how we will secure future water supplies and continue to meet demand

- We produce the plan every five years, and it is a long term plan that involves forecasting future supply and demand of water
- We forecast future supply and demand for water through modelling
- This modelling requires us to make assumptions about the future, for example future rainfall, future population growth etc
- There have been some recent changes to these assumptions and environmental legislation that means we are now forecasting that we will not have enough water to supply all new non-domestic demand in Suffolk between 2025 and 2032



12

## SECURE WATER SUPPLIES IN SUFFOLK WHERE THE SHORTAGE HAS COME FROM

The water shortage in our forecasting is driven by three main factors:

Changes to our licences around how much water we can take from rivers – river abstraction

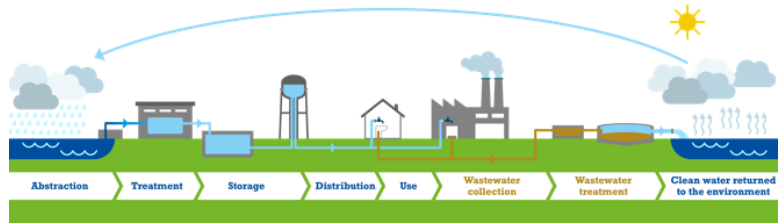
Changes to future assumptions around water availability due to climate change

Increasing demand for water from the industrial sector

13

**SECURE WATER SUPPLIES IN SUFFOLK  
MORE ON RIVER ABSTRACTION**

- The changes to the way we can take water from rivers is having the biggest impact
- Let's revisit the water cycle:



14

**SECURE WATER SUPPLIES IN SUFFOLK  
MORE ON RIVER ABSTRACTION**

- Our environmental regulator, the Environment Agency specifies where we can take water from and the quantities we can take – this is called abstraction
- The Environment Agency is reducing the amount of water that water companies can take from rivers to sustainable levels
- This is because there can be a negative impact on the environment if too much water is abstracted
- The impact of climate change is expected to mean greater variability in water levels in rivers and so the changes also prepare for that
- The Environment Agency is bringing in these changes from 2030, although some licences could be reduced earlier



15

**SECURE WATER SUPPLIES IN SUFFOLK  
THE IMPACT**

- We agree with the changes to abstraction because our modelling also shows that the maximum annual quantities we could abstract is not sustainable.
- In some parts of Suffolk, including our Hartismere Water Resource Zone, we currently can't connect any new business customers onto the network from now until the issue is resolved.



16



**SECURE WATER SUPPLIES IN SUFFOLK  
THE SOLUTIONS**

Encourage water efficiency to reduce demand	Reduce leakage from the water network	Introduce more interconnection in the network so we can move water around the region more easily	Use new technology to recycle waste water	Build new water storage infrastructure e.g. a reservoir
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We are planning to do all of these things to address the problem

We will also need to invest in new infrastructure to address this problem

This will be either an Effluent Reuse Scheme or a new winter storage reservoir

17

**SECURE WATER SUPPLIES IN SUFFOLK  
THE SOLUTIONS: WATER EFFLUENT PLANT**

- Usually treated wastewater is released to the water environment, like the sea, from our water treatment works.
- Eventually, via the water cycle it will make its way back into the rivers we abstract from and our water treatment works then back to drinking water.
- A water effluent plant shortens the water cycle as after the wastewater treatment works, the water is treated to a higher standard so it can be released directly into the rivers we abstract from.
- It can then be abstracted and treated to drinking water quality



18

**SECURE WATER SUPPLIES IN SUFFOLK  
THE SOLUTIONS: A NEW RESERVOIR IN NORTH SUFFOLK**

- We are also considering whether to build a new reservoir in Suffolk – this would be built instead of the Effluent Reuse scheme



19

**SECURE WATER SUPPLIES IN SUFFOLK  
THE CHOICES**

- We currently don't have all of the data to decide which is the best solution to secure water supplies in Suffolk and it may be we need a combination of both to secure supplies in the long term, but at different points in the future.
- There are a number of considerations when deciding what investment to make including:

Water effluent plant	Winter storage reservoir
Can be operational quicker – by 2032	Likely to take longer, operational by 2035, however there is a possibility it could be delivered quicker than this
Lower cost upfront to put the infrastructure in place	Higher cost upfront to put the infrastructure in place
Higher running cost in the long term	Lower running cost in the long term

20

**SECURE WATER SUPPLIES IN SUFFOLK  
THE CHOICES**

- Our preferred approach is therefore to conduct the detailed design work for both the water effluent plant and the reservoir so we can determine the best approach and adapt as needed
- We will complete the detailed design work and make a decision on the investment needed in 2026



21

## TELL US...

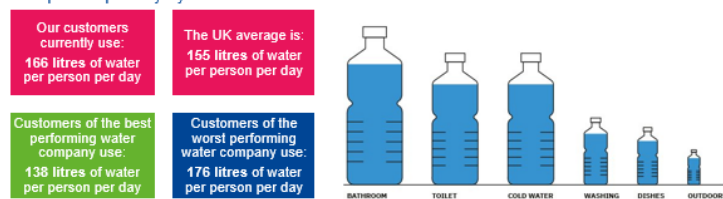
- ✓ **How do you feel about the prospect of a new reservoir in North Suffolk? What are the benefits? Do you have any concerns?**
- ✓ **How do you feel about the prospect of a water effluent plant in North Suffolk? What are the benefits? Do you have any concerns?**
- ✓ **Do you agree with ESW's approach to prepare for both and make a decision in 2026? Why/Why not?**

23

## TOPIC 2: COMPULSORY METERING

### COMPULSORY METERING THE AVERAGE AMOUNT OF WATER USED BY EACH PERSON PER DAY IN OUR REGIONS

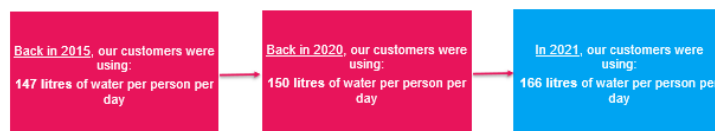
- Essex & Suffolk Water is classified as a seriously water stressed area by the Environment Agency
- We need to reduce the amount of water used by our customers:
  - To ensure we always have enough water
  - To reduce our impact on the environment – reducing the amount of water needed to treat, thereby reducing the amount of chemicals and energy used to treat and transport water
  - To help save our customers money
  - Ofwat, our regulator, expects all water companies to reduce water usage to 110 litres per person per day by 2050



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### COMPULSORY METERING THE AVERAGE AMOUNT OF WATER USED BY EACH PERSON PER DAY IN OUR REGIONS

- The average amount of water used by our customers has changed over time, as we have worked to educate customers and support them to use less water, such as by using water-saving devices and water meters
- However, the impact of COVID has driven water usage up due to factors such as home working and staycations – nationally there has been an increase of around 10%



- We don't have the official figures yet for 2022, but we expect a reduction from the 2021 position as COVID restrictions have been removed and consumption returns somewhat to "normal"

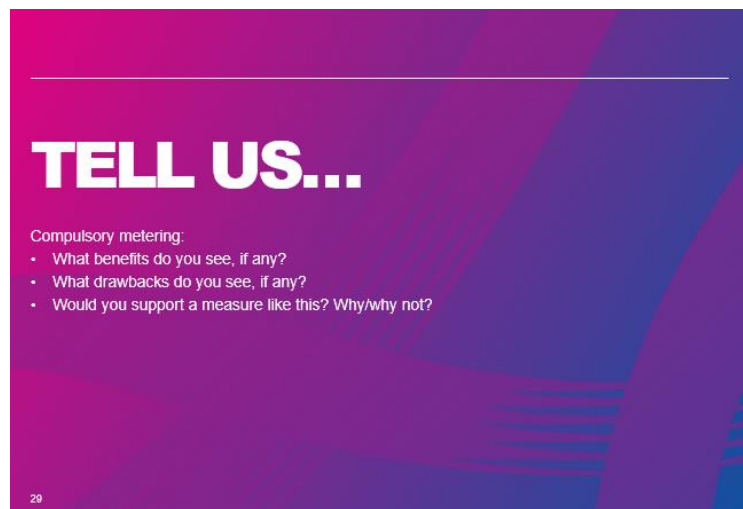
26

## COMPULSORY METERING WHAT IS IT?

- At this time customers can choose to go on a water meter, unless they move into a property that already has one installed
- However many water companies are introducing, or considering to introduce compulsory metering
- This is where it would be made compulsory for all homes to be fitted with a water meter by either 2030 or 2035
- This would be introduced as part of a wider package of measures to save water
- Currently 64% of all properties in Essex and 69% of properties in Suffolk have a water meter



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## SMART METERING WHAT IS IT?

- We could also introduce smart meters as part of the compulsory meter roll out which automatically measure how much water a home uses and send readings to the water company
- Customers could track their usage on an app which will help them understand their habits, help them identify leaks and / or leaky loos and compare their water use to others and receive personalised advise on how to save what



30

# TELL US...

Smart metering:

- What benefits do you see, if any?
- What drawbacks do you see, if any?
- Would you support a measure like this? Why/why not?

If compulsory metering were to go ahead would you prefer a normal water meter or a smart water meter? Why?

32

## TOPIC 3: BILL PROFILES

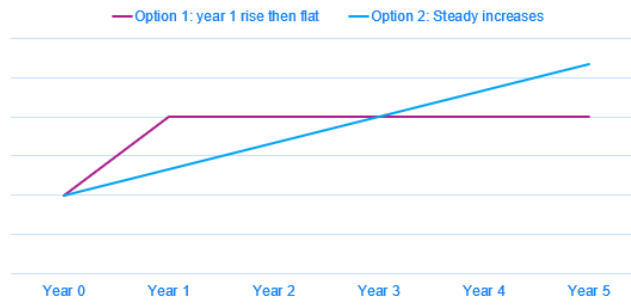
### BILL PROFILES INTRO

- As you know it is likely that from 2025 water and wastewater bills will increase to fund the various investment required that we have covered over these sessions
- We want to understand more about how you would prefer to see this increase reflected in your bill



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**BILL PROFILES**  
**FLAT VS INCREASES**



In both these options the total amount you pay is the same

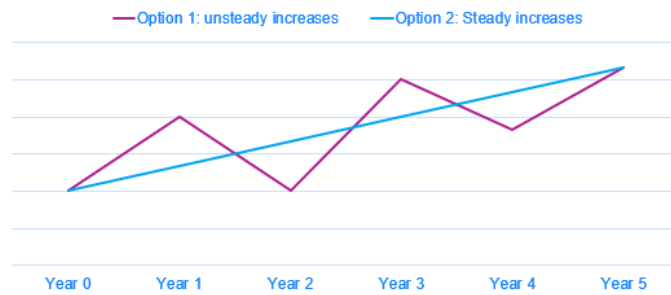
35

**VOTE...**

- ✓ Which do you prefer:
  - ✓ Year 1 rise then flat
  - ✓ Steady increases

37

**INCREASES: STEADY OR UNSTEADY**



In both these options the total amount you pay is the same

38

# VOTE...

- ✓ Which do you prefer:
  - ✓ Unsteady increases
  - ✓ Steady increases

40

# THANK YOU



# Appendix E: Topline People Panel report

Topline results – Deliberative research into complex bill drivers for 2025-30 – November 2022

## Overview of sessions

People Panel session 8 has formed part of the Deliberative Research, which Explain is delivering on behalf of NWG and will help inform NWG's PR24 planning.

The overarching aim of this project is to ensure that some of the more complex conversations necessary within the PR24 planning process could be managed in deliberative manner. The topics covered in this project are as follows:

- Asset health
- Public value
- Statutory obligations (with regard to storm overflows and nitrates specifically)
- Bill profiles

People Panel session 8 has helped to inform the first two topics, asset health and public value, and comprised five People Panel online groups, with one NWG employee panel and four customer panels with Northumbrian, Essex, Suffolk, and Young customers.

This report provides a topline overview of the findings across the People Panels sessions only.

## People Panel session dates

Sessions were conducted with each of the People Panels for **Asset Health (Part 1 of 2)** on the following dates:

- **Monday 3<sup>rd</sup> October: Employees**
- **Monday 3<sup>rd</sup> October: Northumbrian**
- **Wednesday 5<sup>th</sup> October: Essex**
- **Monday 10<sup>th</sup> October: Suffolk**
- **Wednesday 12<sup>th</sup> October: Young**

## People Panel attendees

The number of attendees per session were as follows:

People Panel #8 (Part 1)	Total no. of attendees	'Defining the Future'
Employee	5	n/a
Northumbrian	13	2
Essex	11	3
Suffolk	10	2
Young	8	1
<b>PP Asset Health total:</b>	<b>47</b>	<b>8</b>

## People Panel: Asset Health

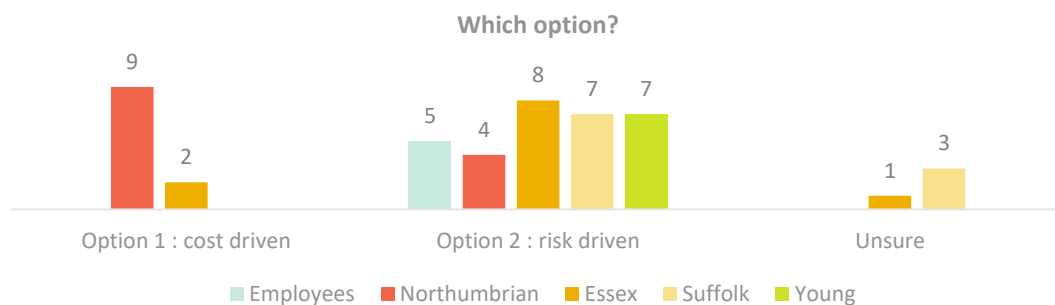
### Discussions regarding financial approaches

Several themes were drawn out when considering **approaches to personal financial decisions**, such as **saving where possible** to prepare for future **uncertainties**, taking steps to maintain essential services to increase reliability, and using **cost-benefit analysis when deciding purchases**.

Panellists who were parents highlighted their responsibility to put their **children's safety and education first**, whilst those who voiced their poor financial situation explained they would use products for as long as possible before justifying replacements. **Recent impacts on approaches** to decisions were the **cost-of-living crisis**, as well as an awareness to be more energy efficient and **care for the environment** where possible.

### Results for preference of options:

In the final poll, out of 46 responses, **'option 2: risk driven' was the most selected, preferred** response by 31 respondents (67%). 'Option 1: cost driven' was preferred by 11 respondents (24%), and a small number of 4 respondents were 'unsure' (9%).



Both the **NWG employee and Young people panels** unanimously preferred the 'risk driven' option 2. Most Essex panellists (7 of 10) and most Suffolk panellists (8 of 11) also preferred the 'risk driven' option 2. The **majority (9 of 13) of the Northumbrian group preferred the 'cost driven' option 1**, showing regional differences.

### Reasons underpinning preferences of each option:

**Option 1: cost driven** (11 of 46 panellists preferred – 24%)

**Benefits** of the cost driven option 1 centred around the **uncertainties of the future**, and the desire to be **cautious about spending money before it is necessary** to spend money, particularly due to the **cost-of-living crisis and current financial struggles being faced by the population**.

A **downside** of the cost driven option 1 was the idea that the same task may be **more expensive to do in the long run**, due to increases in costs of materials and inflation.

**Option 2: risk driven** (31 of 46 panellists preferred – 67%)

**Benefits** highlighted panellists' preference of **taking a cost impact now to prevent costs and problems escalating in future** years. Also discussed was the **value of safe, clean places** which don't compromise health and safety, and **aligns with NWG's core principles**. Some panellists favoured this as they were **personally financially able to justify** investing in this option.

**Other views on the options** included NWG having a **responsibility to the customer to keep bills affordable** due to water supply being an essential service, whilst panellists generally stated there was a dilemma to be made between choosing a short-term fix versus a long-term plan. Some panellists suggested they were unsure, and that a **hybrid, middle-ground option would be preferable**.

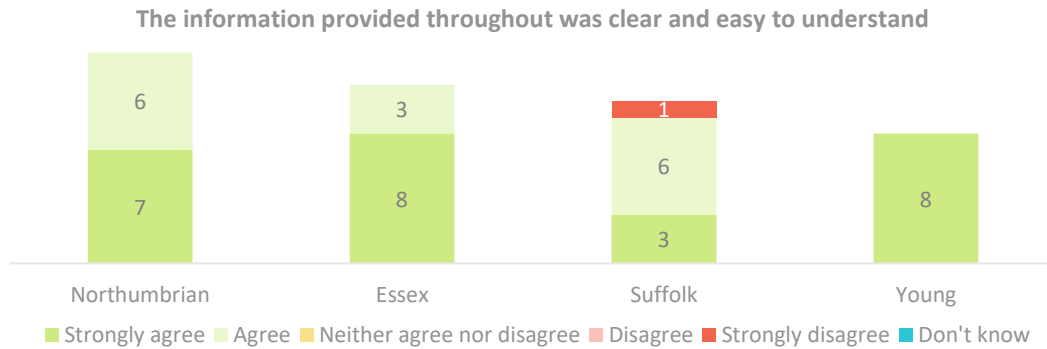
## People Panel: Public value

### Discussions regarding public value

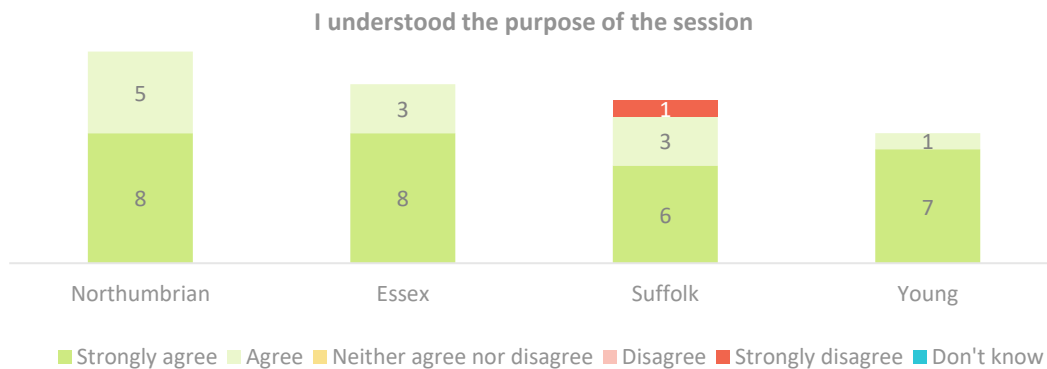
Panellists generally considered **public value to be important**, with some employee panellists stating public value was **firmly embedded within NWG** as an organisation. Whilst **environmental and societal benefits** were recognised, some panellists felt that **investments could be prioritised elsewhere**, particularly due to the current cost-of-living crisis. Potential downsides of public value investments were the responsibility of stewardship of such public places, as well as **safety and liability issues**, such as gaining access to reservoirs. In reference to the cost-of-living crisis, panellists felt they would **need more information to do a cost-benefit analysis** at this moment in time.

## Closing satisfaction polls:

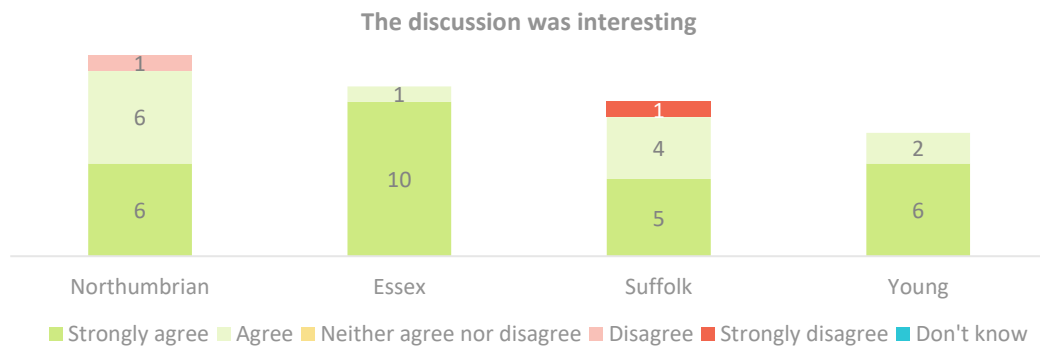
Overall, the members had a net agreement that the session was easy to understand. The same individual panellist, in the Suffolk People Panel, however, 'strongly disagreed' with all four statements.



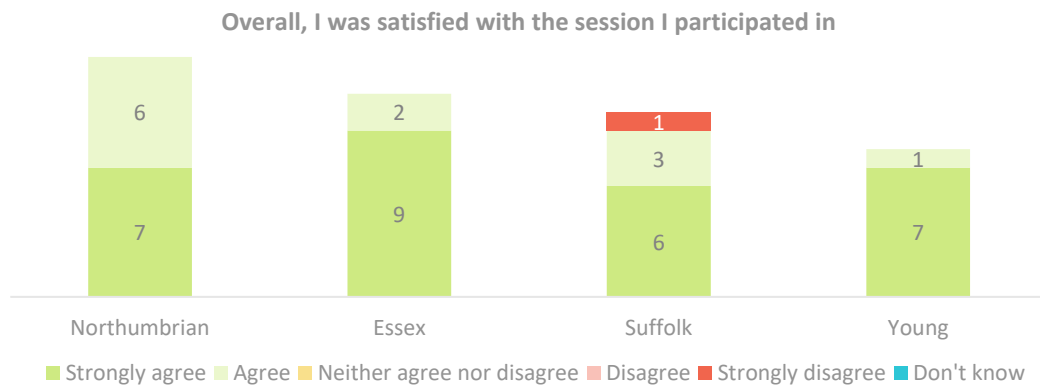
Young panellists had the greatest understanding of the information and purpose of the session, whilst the majority of Northumbrian and Essex panellists also had a majority stating an understanding. This differs from the Suffolk panel where the majority 'agreed' rather than 'strongly agreed' with this statement.



One Northumbrian panellist disagree that the discussion was interesting, and this statement generally gained more 'agreements' than 'strong agreements' across most panels, except the Essex People Panel.



Overall, most of all panellists strongly agreed that they were satisfied with the session they participated in.

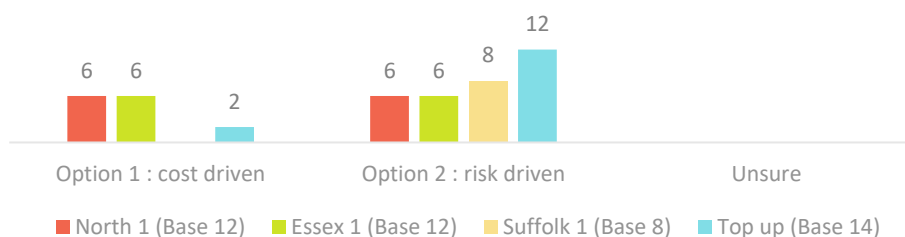


## Appendix F: Breakdown of asset health poll

Options	(Base 92)	%
<b>Option 1: Cost driven</b>	25	27%
<b>Option 2: Risk driven</b>	63	68%
<b>Unsure</b>	4	4%

In the first online workshop final poll, out of 45 responses, **'option 2: risk driven' was the most selected, preferred** response by 31 respondents (69%). 'Option 1: cost driven' was preferred by 11 respondents (31%), and no respondents stating they were 'unsure'. Significantly, those participants in the **North and Essex regions were the regions which had more split decisions** between the two options, whilst participants from the Suffolk region unanimously preferred the second, risk driven option.

Online Deliberative Workshop Results - Which option? (Base 46)



In the People Panels final poll across all groups, out of 46 responses, **'option 2: risk driven' was the most selected, preferred** response by 31 respondents (67%). 'Option 1: cost driven' was preferred by 11 respondents (24%), and a small number of 4 respondents were 'unsure' (9%).

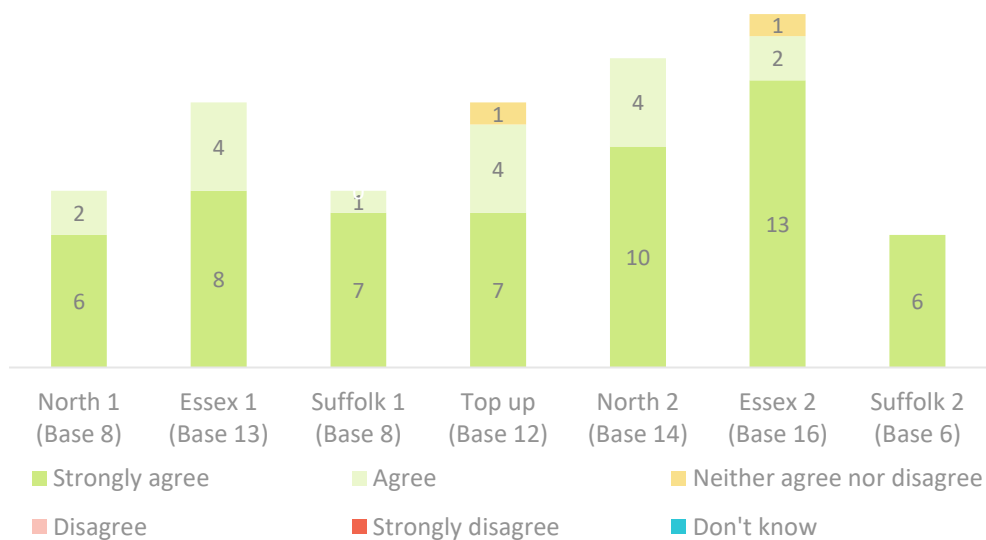
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People Panel Results - Which option? (Base 46)

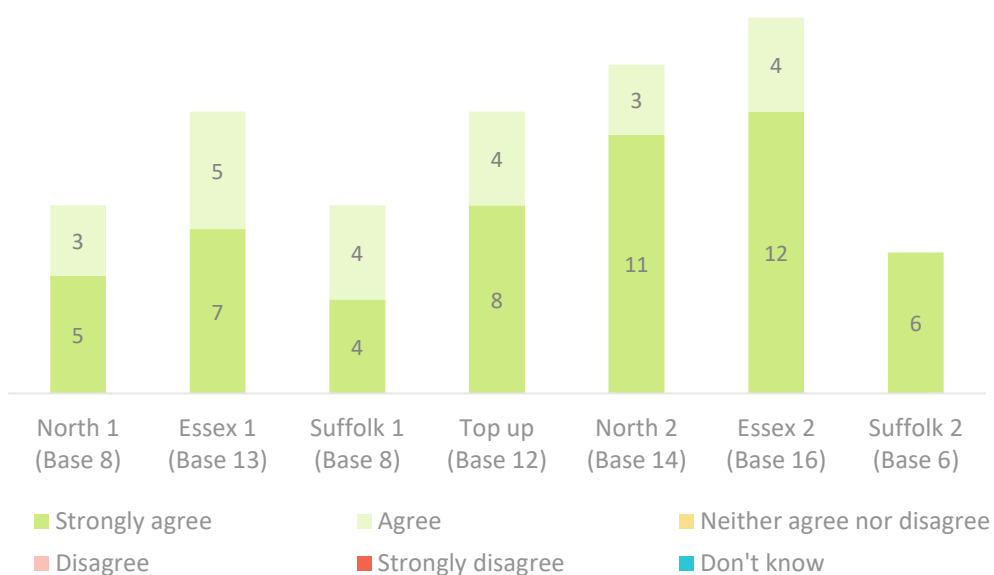


## Appendix G: Closing satisfaction poll results

The information provided throughout was clear and easy to understand (Base 77)

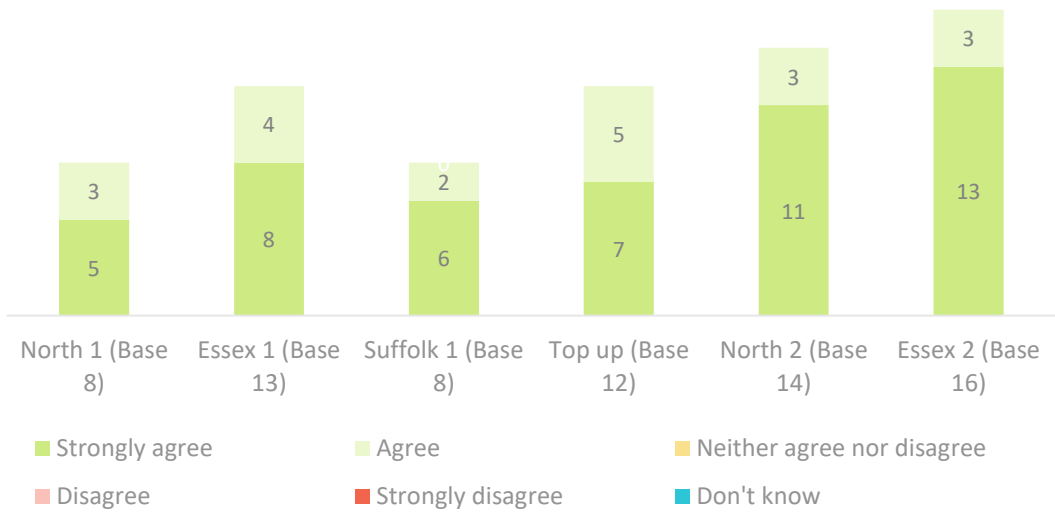


I understood the purpose of the session (Base 77)

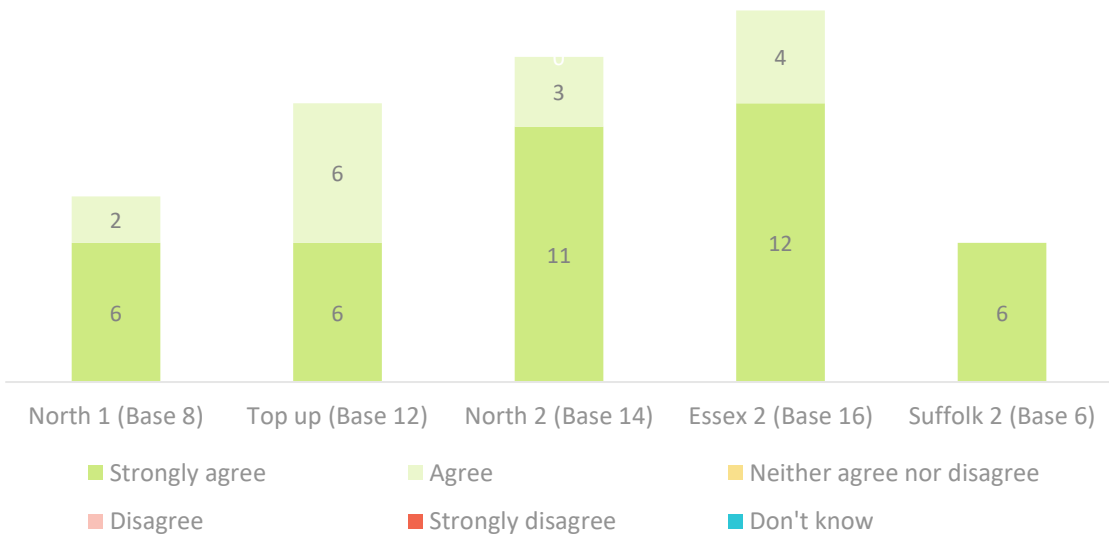




The discussion was interesting (Base 71)



Overall, I was satisfied with the session I participated in (Base 56)





Author: Ashley Tate

Report check: Kirsty Laing