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# Asset Health, Resilience & Intergenerational Fairness

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Final report prepared for:  
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JN 4685



# The research findings...

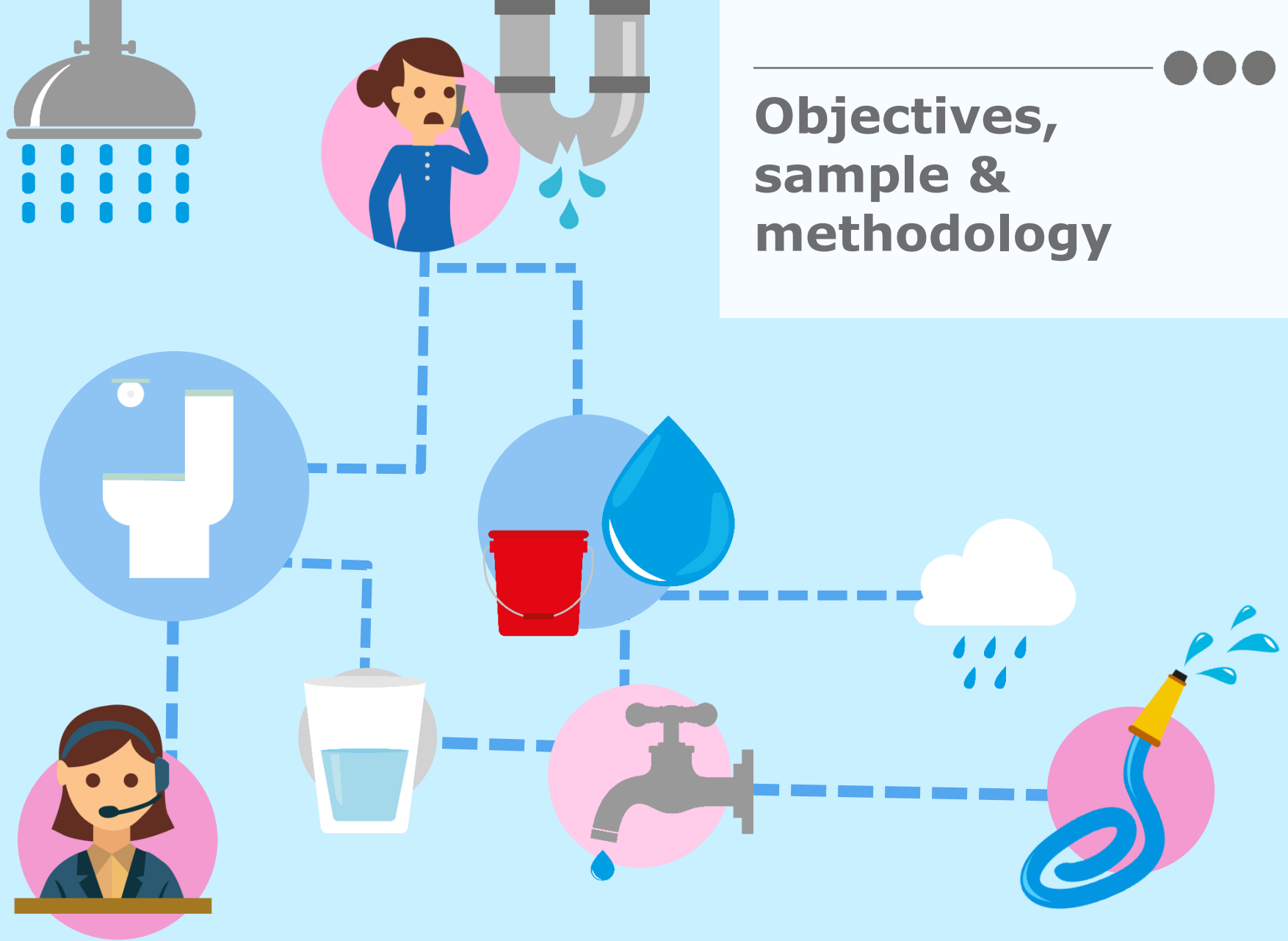
This document details the findings from Asset Health, Resilience and Intergenerational Fairness research conducted between 12<sup>th</sup> April and 10<sup>th</sup> May 2018.



## Structure

1. **Objectives, methodology & sample**
2. **Views on ST/DVW, knowledge of service & trust**
3. **Attitudes towards leaks & likelihood to report**
4. **Customer understanding of and views around asset health**
5. **Views on resilience and understanding how ST/DVW should act**
6. **'Do more' solutions:** willingness to pay and views on bill impact
7. **Conclusions**
8. **Appendix**

# Objectives, sample & methodology



# Research objectives



**As part of its customer engagement programme for PR19 ST/DVW wished to conduct some research looking specifically at asset health, resilience and intergenerational fairness with the overall aims of this research being:**

**To understand how well customers understand the issue of risk, and what level of risk they are prepared to tolerate**

**To understand customers' preference for intergenerational fairness when it comes to asset health and whether they are willing to fund better monitoring of assets**

# Methodology (an overview)

## 2 x 2.5 hour deliberative workshops

**12<sup>th</sup> April:  
Wrexham**

(20 participants)



**26<sup>th</sup> April:  
Powys**

(19 participants)



### Conducted with domestic customers including a mixture of:

- Current and future bill payers
- Socio-economic groups
- Age
- Gender
- Number per household
- No children, parents and grandparents
- Those who had and hadn't experienced a water service issue



## 8 x NHH teledepths

**8x 30-45  
minute teledepths**

(4 each in Wrexham  
and Powys)



### Conducted with non- household customers, includes a mix of:

- Water dependencies
- Sectors
- Micro & small sizes



# Detail on the methodology

## Non-household customers

8 x business customers of various sizes and sectors have been interviewed as displayed below:

Sector	Size	Region
Retail	Micro	Wrexham
Chemical blending	Small	Wrexham
Retail	Small	Wrexham
Cafe	Small	Wrexham
Retail	Micro	Powys
Restaurant	Small	Powys
Health	Small	Powys
Manufacturing	Small	Powys

# Detail on the methodology

## Deliberative workshops/tele-depths

**The topics covered in this research were complex and customers may have struggled to understand them. We therefore conducted a series of deliberative workshops and telephone interviews.**

Qualitative

As its name suggests, deliberative research focuses on participants' viewpoints *after* they have been able to 'deliberate' on the issue(s) being put to them as opposed to traditional qualitative methods that seek to understand *only* current viewpoints.

Adopting this method meant that participants could both give their uninformed views and perceptions on the topics covered before being educated and then give their more informed opinions leading to well-rounded feedback.

Participants for the workshops were recruited using our experienced team of face to face recruiters. Incentives of £50 were given on the basis that the workshops took two and a half hours. The business tele-depths were recruited using our experienced telephone recruiters and were offered a £40 incentive for a 30-45 minute interview.



# Detail on the methodology

## Behavioural science

We have been conducting research into asset health for a number of years and know that it can prove to be a complex and strategic subject which customers can struggle to grasp.

That is why we have been working with Garry Sanderson, a behavioural scientist whose previous career was in asset management in the water sector, to plan our projects in a way which makes them engaging for the customer, whilst not under or overplaying the subject matter. Such planning is important as shown by the examples of relevant behavioural biases on the right:



- loss aversion - we are hardwired by evolution to feel losses with greater intensity than equivalent gains. ***Important for example when framing investment options and asking about monetary amounts respondents would be willing to invest in schemes***
- present bias - we value the present and short term more than the longer term in our decisions. ***Important for example when asking about investment timeframes***

In designing our engagement model, we took into account behavioural biases to ensure that customers gained an appropriate level of understanding of issues to be able to make an informed choice without being subject to inappropriate influence from the context within which they gain this understanding.



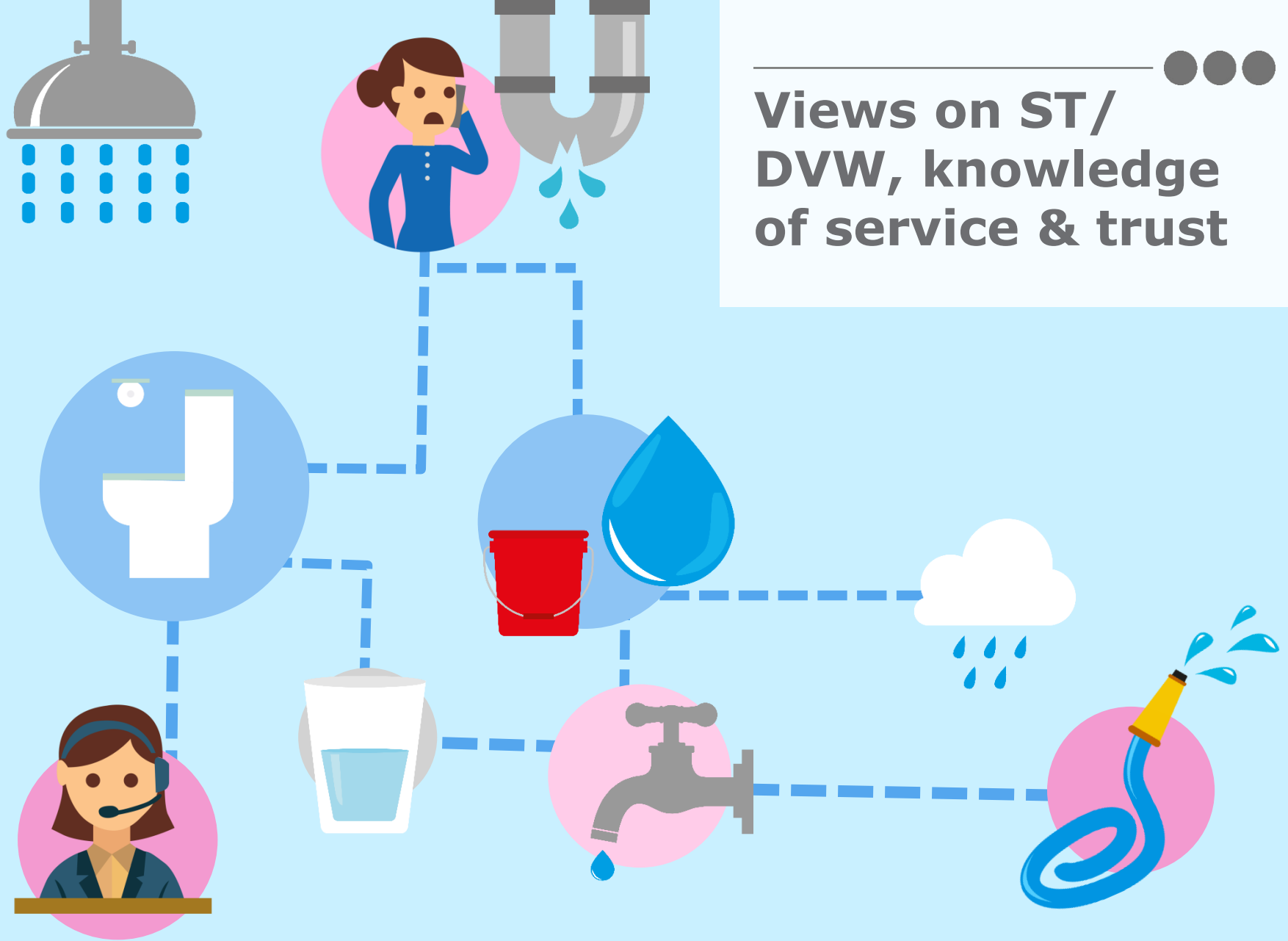
# A note on the findings

**Despite speaking with a range of different types of audience and customer (as detailed over the previous pages) this research is noteworthy for its consistency of findings across sub-groups, as will be detailed across the following pages.**

Whilst there are a small number of nuances that have been pulled out in the report that follows, it is worth stating at this point that on the whole there is actually a strong sentiment that pervades all sub-groups whether that be businesses, household customer or future bill payers.



# Views on ST/ DVW, knowledge of service & trust



# Overall there was a reasonable level of knowledge regarding the services ST/DVW provides

## Unprompted

The majority of unprompted awareness was **relating to water supply** (and wastewater services) in general.

Other aspects such as maintenance of assets (pipes, reservoirs, general infrastructure), resolving of issues (such as leakages, burst mains), and customer service were also mentioned after some thinking time.

It was not common knowledge amongst the Wrexham domestic customer group that Dee Valley Water do not supply wastewater services



## Prompted



Generally, customers felt there were no big surprises when presented with a slide on ST/DVW services...

...Though some question what 'enabling a thriving environment' and 'promoting a thriving community' really mean. There is scope for education in these areas to help customers understand ST's/DVW's goals beyond simply water supply (and treatment)



# Those who had personally dealt with ST/DVW often referenced good communication & customer support

Words that spring to mind when thinking about ST/DVW...

"Water"

"Wales"

"Bills"

"Meters"

"Drains"

"Sewage (ST)"

"Local"

"Reservoirs"

"Helpful"

"Needed"

"Rivers"

"Good Communication"

"Local staff"

"Approachable"

"Friendly"

"Blockages"

"Leaks"

**Which companies spring to mind when thinking of companies that plan effectively for the future?**

**After some thinking time, mentions included:**

- Amazon, Virgin, Dyson: always looking for the next best thing in new technologies/for new ways of doing things
- Life insurance/funeral cover: aim to avoid large bills for family members, thinking ahead in terms of costs

*There was one spontaneous mention of Dee Valley Water in the Wrexham workshop, though they were thinking more in terms of water supply/rainfall rather than asset maintenance.*

**Note: positive perceptions such as 'local', 'friendly' and 'helpful' came up more so during the Wrexham-based sessions (not to say ST were not perceived positively too!)**



# A note on trust!

High trust scores were gained across participants, with the majority giving scores in the region of 8+ (out of 10)

Trust, however, seems to be multi-faceted with many people giving high trust scores for varying reasons...

Water always  
being there  
when they 'turn  
on the tap'

Overall a good  
service with  
limited  
problems

Good  
communication  
and customer  
service when  
issues do arise



## ***Though a reliable service alone does not necessarily instil trust...***

- There is an overall appreciation that a reliable service from ST/DVW is often taken for granted
- It seems very high or very low scores are mostly driven by previous experiences with their water company when an issue has arisen
- An unreliable service would be likely to drive scores down, but having a continuously reliable service doesn't necessarily drive scores up

*"You expect the service to be what you pay for. It doesn't necessarily relate to trust. The problem is when you've got a new type of problem, or a problem happens unexpectedly, that has a negative impact on trust, but it doesn't actually make you trust the company more because the service is continuous."*

**C2DE, DVW**

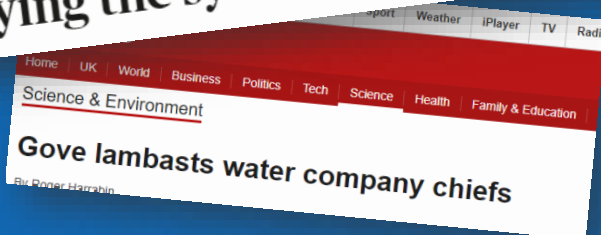
# Though trust was raised in a more sceptical light at various points in the discussion...



**Michael Gove: Water companies must clean up their act or face tougher regulation**

The Environment Secretary is accusing water suppliers of "playing the system" to pay millions in dividends while avoiding tax

**Michael Gove accuses water industry of 'playing the system'**



- Uncertainty around the role of **shareholders** and the profits they take came up in both the Powys and Wrexham workshops – this led to a discussion around investment, and how customers can be asked to invest if profits are going to be taken by shareholders (this is likely due to the most recent news at the time of the workshops – see examples to the left)

- For some, the **lack of competition** in the market meant that there is little to compare against

In some cases, this led to trust scores actually falling by the end of the discussion, mostly due to the scepticism around where customer investment would be spent vs how much would go into shareholders pockets

A small minority also lost a bit of confidence in their water company after discussing some of the scenarios – shouldn't they have already planned for this?

# Powys: a forgotten part of Wales?



It is important to note that in the Powys workshop, there was a strong sense amongst some participants that Powys may have become a forgotten part of Wales

The fact that Powys is so vast and rural came up multiple times during the discussion; huge stretches between towns and villages means individuals in Powys can feel cut-off from the rest of society and less prioritised by ST.

There is therefore a sense of scepticism in regard to ST's ability to 'get things done', that was particularly concentrated amongst those who have had an issue that needed sorting, only to find that they were left waiting longer than they deemed reasonable.

*There's so much mileage between everywhere, especially in Powys, it's absolutely vast! You know, to get to an area in Powys, it's horrendous. The mileage, the rurality... it's a real barrier*  
**ABC1, ST**



# Attitudes towards leaks & likelihood to report





Participants were shown a picture of a leak in the road, and were then asked...



**“How likely would you be to contact ST/DVW about this in the following situations?”**



**You see this on your route home**

**You see this on the road outside your home/business**

**You see this in your front garden/encroaching on your business premises**

Very unlikely

Very likely

1

2

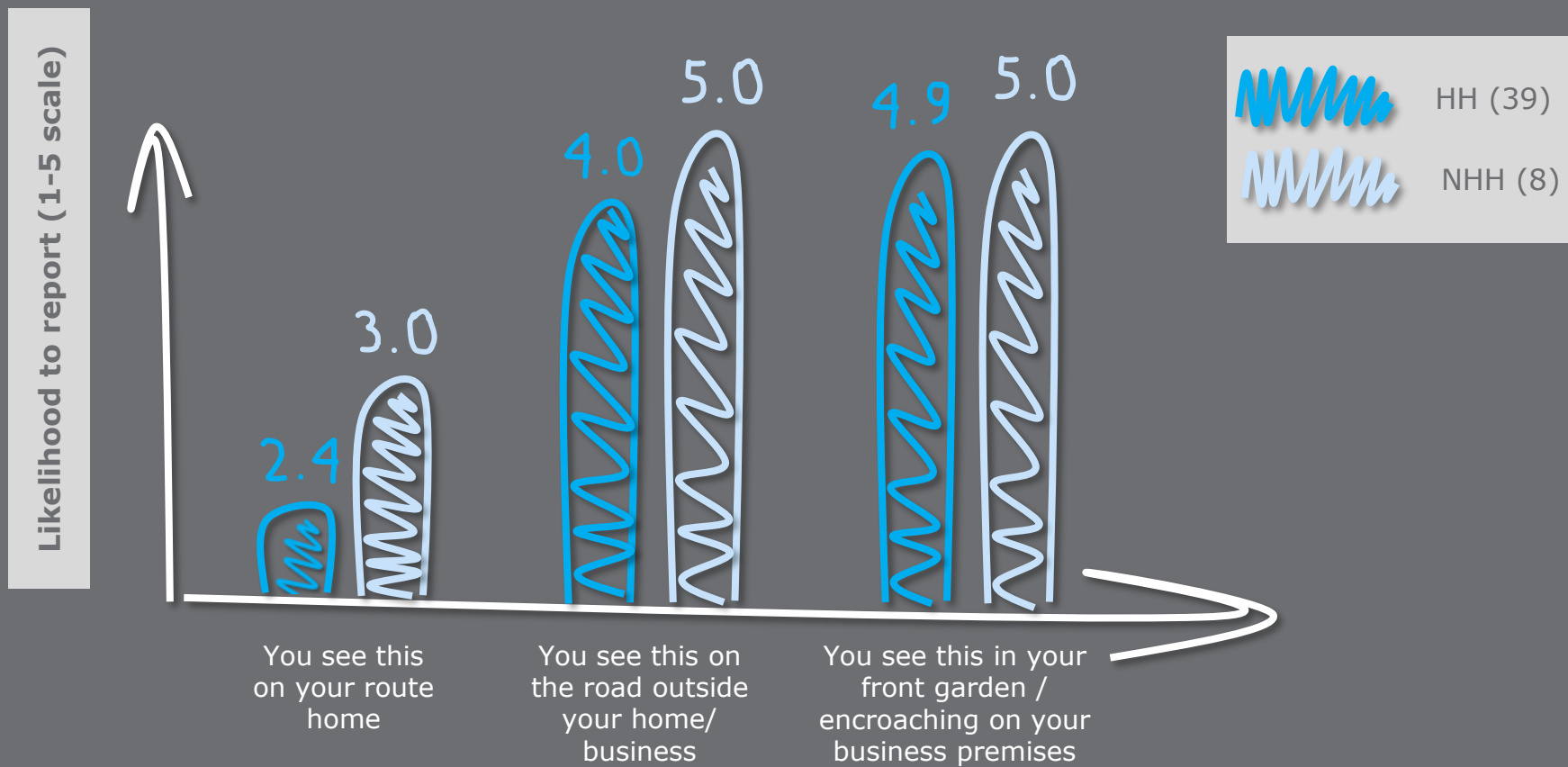
3

4

5

# Likelihood to report the leak

Although there was a slightly higher inclination to report the leak amongst businesses, it was clear that overall, participants' inclination to report the leak rises as an event begins to impact on them or their business more and more...





## A number of factors influenced participants' likelihood to contact ST/DVW

### Proximity

Participants were significantly more inclined to contact 'someone' the nearer the leak was to their property/business.

### Duration

Although participants were less likely to report a leak further away from their property/business, they were more likely to report it in this instance if they had noticed it had been there for a few days.

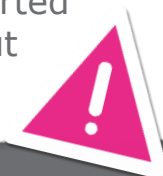
### Severity

Participants stated they were more likely to report a very obvious leak e.g. water spraying out of a pipe, vs a leak that could be mistaken for a puddle.

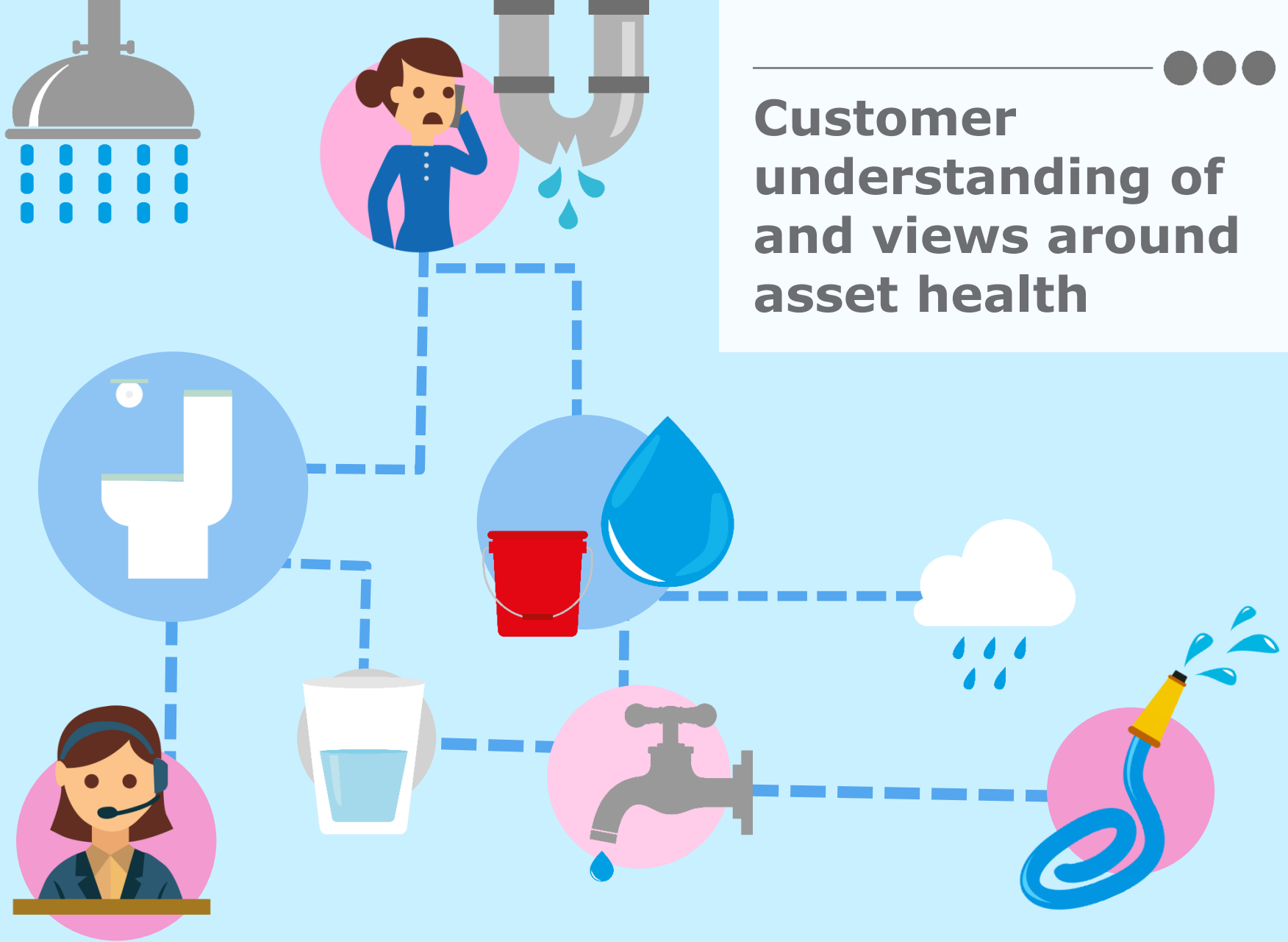
### Knowledge

A small number were unsure on who the correct organisation is to contact – Council? The Highways? (though the majority stated they would contact their water company directly)

Only a small number of participants had actually been in a situation where they had discovered a leak and contacted ST/DVW directly. In these instances, leaks were reported if they were very near to the participant's property, or if they were further away but had been there for a few days/were very severe



# Customer understanding of and views around asset health



# Context

**The health of a water company's assets is a little thought about concept for the majority of the public.**

So much so that to 'come in cold' on such a topic would be difficult for the average person.

As such, we opted to incorporate an exercise to facilitate participants' understanding of this topic before asking them directly about water company and wastewater assets...



**We asked people to think of themselves in relation to how they look after their car\*.**

**By doing so we were able to have participants understand that they themselves are responsible for the health of their own assets.**

**This acted as an appropriate foundation on which to then ask them about a water company's assets, and expectations around how they should be maintained and looked after.**



# Where do you see yourself...



**WHAT PARTICIPANTS WERE SHOWN**

## Reactive

I do the minimum to **maintain my car** and only take it to the garage if I really have to.

It get its **service and MOT when I am reminded** of it. Sometimes I might skip a service or oil change.

This can lead to unexpected bills in future.

My car is maintained to a lower than average standard and might not last as long.

I would use low cost solutions to problems, e.g. budget tyres

## Mid-ground

I don't often clean my car but I do ensure **that it is maintained.**

I make sure **it gets its service and MOT on time** and if a minor issue came up I would book it in to a garage.

This leads to relatively stable bills.

My car is maintained to an average standard and has an average lifespan.

I would use good quality parts e.g. mid-price tyres

## Proactive

I make sure my car is **cleaned often and do all the maintenance it needs.**

I make sure that it receives its **service and MOT on time** and if a minor issue came up I would see to it immediately.

This can mean I am spending more in the short term.

My car is maintained to a high standard and has an above average lifespan.

I would use high quality parts e.g. premium brand tyres

# The vast majority of participants identified themselves as 'mid-ground' when it comes to maintaining their own assets

## Position

Proactive

7

Mid-ground

31

Reactive

7

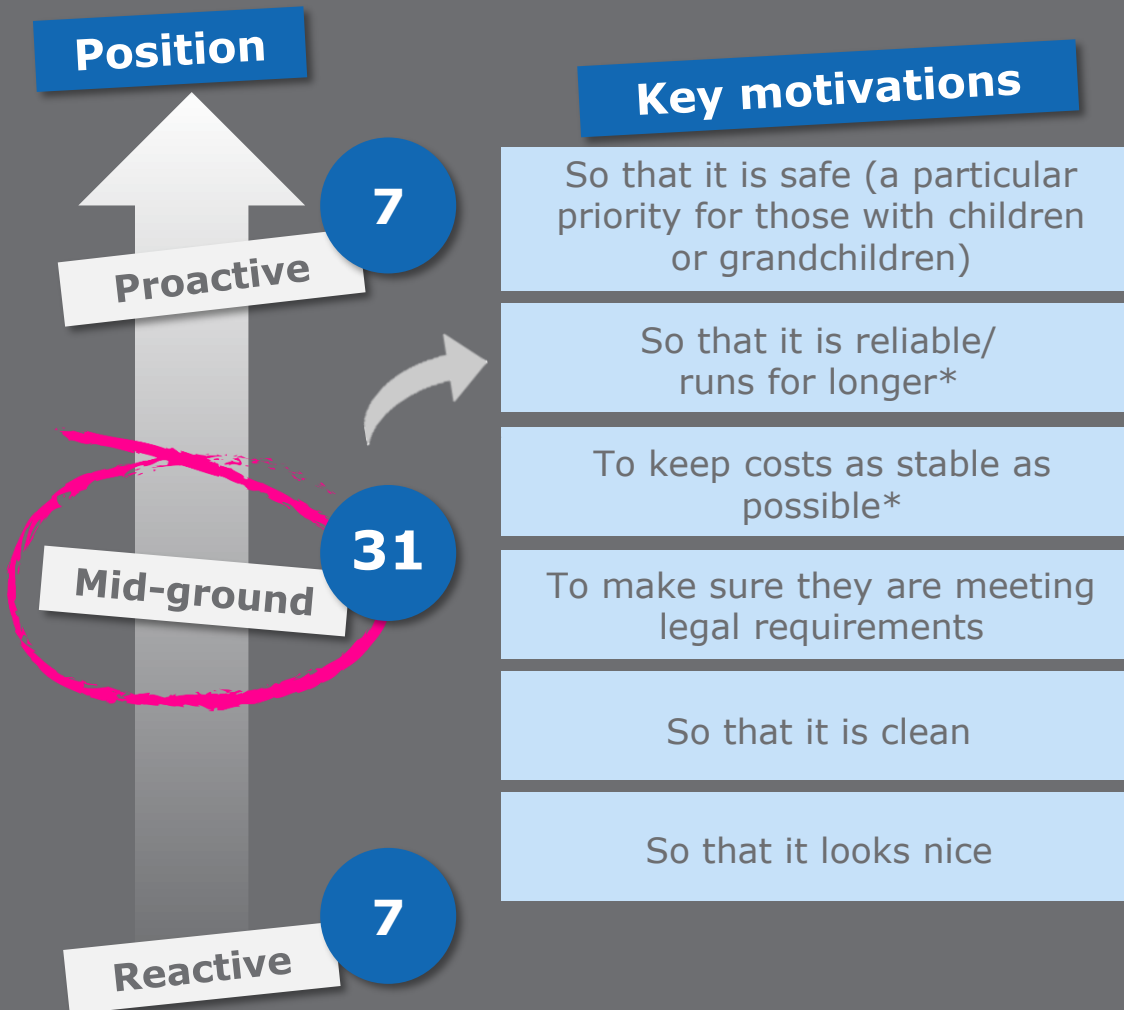
Though behaviour can vary depending on a number of different factors:

1. How old it is – more likely to be reactive if it is old as don't value it as much, but much more likely to look after it proactively if it's shiny and new!
2. How expensive it was – more likely to be more proactive if it was costly in the first place
3. How often it is being used – look after it more if its used frequently
4. Why it is being used – more of a desire to look after the car if it is often used to transport children/grandchildren
5. Household income – those on lower incomes are less likely to be proactive

*"If you carry your children in your car, you want your car to be right, don't you? And if something goes wrong, you take it to a garage, a proper garage, sort it out. You wouldn't want somebody down the road who might bodge it up."*

**C2DE, ST**

# There are a number of different motivations as to why most participants state that they maintain their cars at a mid-ground level



\*It is interesting to note that participants were already indirectly thinking about issues of upkeep and bill profiles and specifically their preference for flat, stable and manageable bills over time at this relatively early point in the discussion.

Many expressed this preference for stability due to the fact that they do not have incomes that can absorb unexpected costs.

As a result participants were averse to fluctuating bills (particularly lower socio economic groups).



# Where should water companies be?

**WHAT PARTICIPANTS WERE SHOWN**



## Reactive

**Dee Valley/Severn Trent only fixes its assets if something goes wrong.**

This can lead to lower bills in the short term but an increased chance of service failure and a higher bill in the long term.

This might mean:  
A few more mains bursts than now.

## Maintain

**Dee Valley/Severn Trent aims to maintain the condition of its assets, providing stable performance.**

In this option Dee Valley / Severn Trent would try to balance stable bills and stable performance.

This might mean:  
About the same number of mains bursts as now.

## Proactive

**Dee Valley/Severn Trent aims to improve the condition of its assets.**

This would mean paying more now to secure long term service and to avoid bill spikes in the future.

This means actively doing things to reduce the chances of failures.

This could be more inspections or more remote sensing technology.

# There is an overall appreciation of the extent of assets a water company is responsible for

When asked to think of examples of assets a water company might need to maintain, there was a reasonably high realisation/awareness

## Spontaneous mentions of assets included:

pipes, meters, water treatment plants, reservoirs, dams

Most participants stated that water companies should take on a more **proactive to mid-ground** stance in regards to maintaining their assets overall...

1

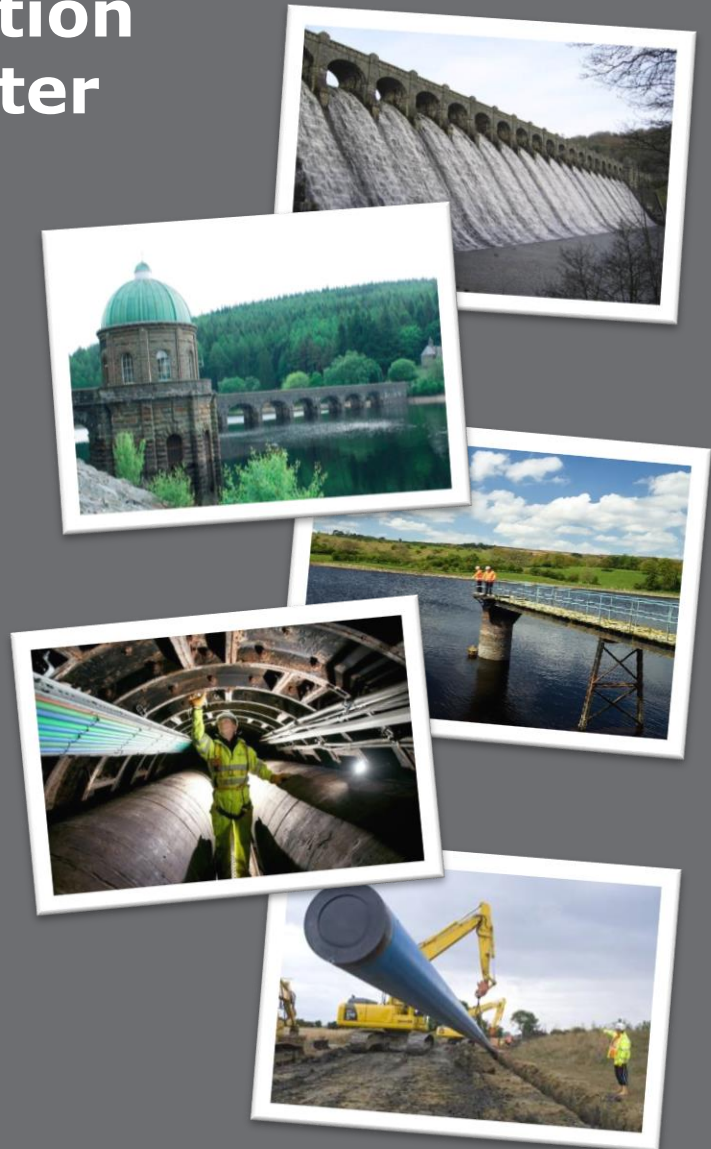
Reactive

16

Mid-ground

28

Proactive





# The health of a water company's assets



Before exploring why people felt the way they did, it is interesting to first note that participants did not always mirror their own personal stance onto that of their water company.

Only one participant out of 44 felt it would be ok for a water company to be 'reactive' in the same way that HH and NHH customers felt they themselves are sometimes forced – either due to lack of time, money or even desire – into a more mid-ground and/or reactive stance.

In fact, customers initially expected a more proactive investment position to be adopted by ST/DVW, or at least somewhere in between proactive and mid-ground.

However, future bill payers were generally more mid-ground. As could be expected, they felt disconnected and couldn't really fathom the idea of doing more than what needs to be done; as long as water is coming out of their tap they are content.

*As an individual, you can be any one of them [reactive, mid-ground or proactive], that's your choice. But [water companies] are providing something for the public.*

**C2DE, DVW**

*They should be proactive but they're probably in the middle... but they could aim to go to a bit nearer to the last one, the proactive one.*

**NHH (Retail), DVW**

*Maybe they do maintain, but there's always room for improvement isn't there. That's something they need to work towards, really.*

**C2DE, DVW**



## Whilst customers want ST/DVW to adopt a mid-ground to proactive investment position, it is interesting to get underneath what is driving this stance

Reinforcing the preference for a 'mid-ground to proactive' service is the fact that ST/DVW are seen to be providing an **essential service** and so to adopt a **reactive investment** position just **wasn't deemed acceptable**. It was recognised that to do so would lead to a spiral of assets falling into disrepair that would eventually impact on all customers, both in terms of safety and cost.

A number of customers commented that it is generally expected that water bills will rise, and therefore would expect water companies to be proactively investing this additional money.

Although, those who view a mid-ground attitude toward maintenance as optimal do so simply because to them, things currently seem to be working as they should be. A very proactive response is therefore deemed unnecessary, particularly as they expect to have to pay more for this type of approach.

**Participants were asked if it matters to them what state a water company's assets are so long as they are receiving their usual service** (e.g. if a water main burst but water is still coming out of their tap...)

Generally customers state they wouldn't immediately be concerned, though overall it was expected that they would start to experience issues eventually.

**It is therefore considered important to ensure water company assets are continuously maintained to a high standard\***

*\*As mentioned in the previous slide, FBPs were less concerned about this scenario; they seemed quite disconnected*

*They should be maintaining all the time, but they should also be forward thinking so there's a little bit of proactive stuff as well as maintaining stuff. I definitely don't think they should be reactive.*  
**NHH (retail), DVW**

*Yes, it does matter [what state a water companies assets are in]... I run a food business so I need to know that the water that I'm using is safe... so, it's quite important for me that pipes are maintained properly.*  
**NHH (restaurant), ST**

# Participants were shown some examples of assets being subjected to extreme events...

After reviewing these case studies, most maintained their feeling that water companies should have a **proactive to mid-ground approach**

Participants wouldn't distrust ST/DVW if there was an issue due to a natural event, but would expect them to have things in place to react to such an event, and have good communication in terms of letting their customers know what has happened and what is being done to resolve it (as in the Tewksbury case)

If an issue occurs due to ageing assets or poor maintenance, participants would feel differently; it is **expected** that ST/DVW would have measures in place to ensure their assets run currently and safely

## Tewksbury case study



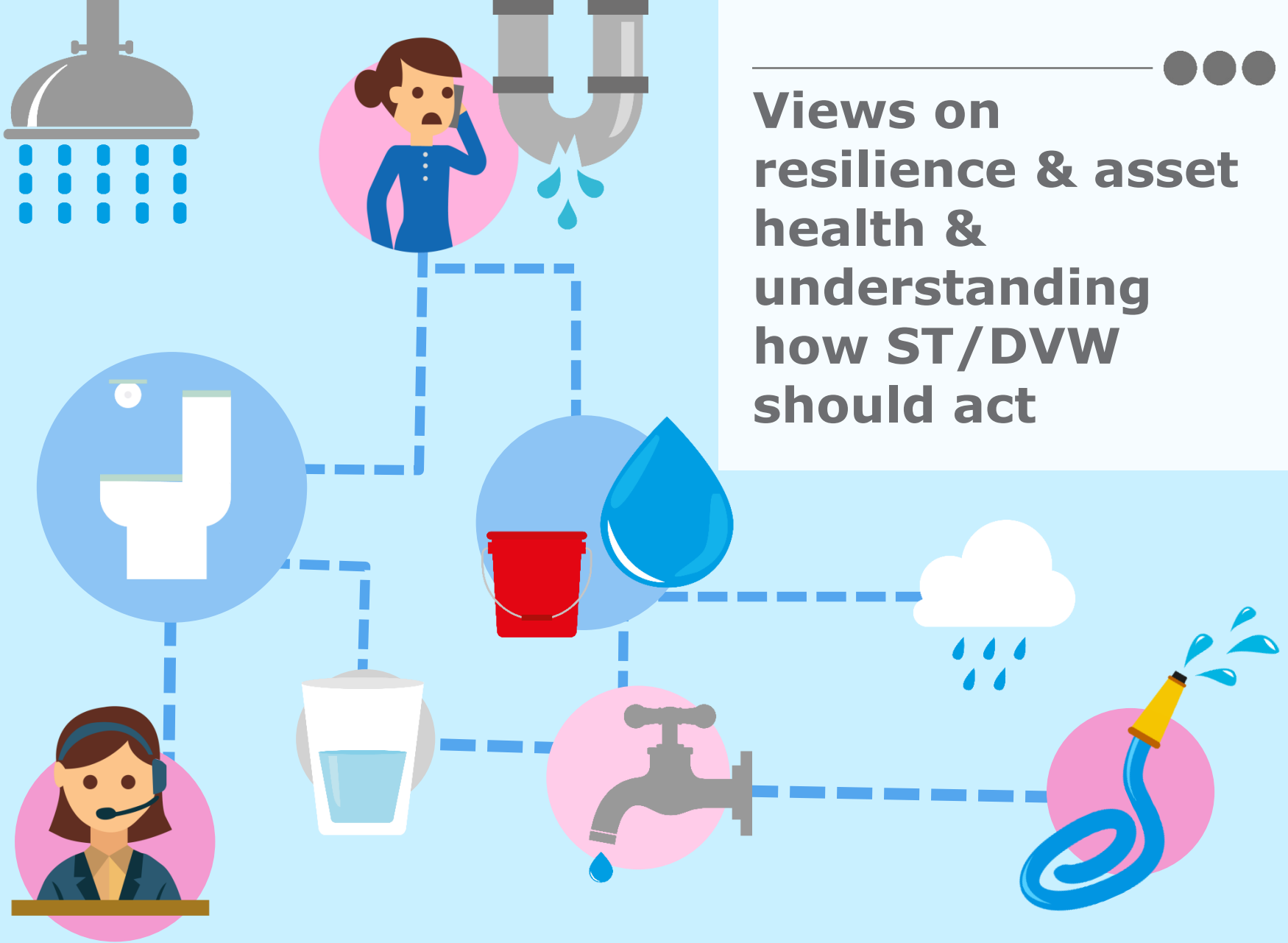
## Cryptosporidium case study



## Pollution case study (ST only)



Views on  
resilience & asset  
health &  
understanding  
how ST/DVW  
should act





# Context

**Participants were shown 2 real-life situations identified by ST/DVW, and were asked for their overall thoughts. They were then shown 3 potential options (without bill impacts) for how ST/DVW could deal with each situation...**

1

Detail the situation and discuss initial thoughts

2

Show potential solutions (without bill impacts) and gather views

3

Discuss willingness to pay for the 'do more' solutions, and understand how much they are willing to pay

4

Show bill impacts for the 'do more' solution and gather overall thoughts



# Scenario 1

## Scenario 1: reservoirs

Severn Trent has many reservoirs in Wales of a variety of ages, construction type and sizes. Due to the nature of this type of asset, the amount of investment they require can vary over time. *Most years* Severn Trent just incur inspection costs and routine maintenance costs.

These assets are very closely regulated due to the significant consequences associated with dam failure and as such Severn Trent keeps them under constant assessment.

If the evidence suggests that the structures have deteriorated then Severn Trent must carry out extensive rebuild and this is costly. The last time Severn Trent had to carry out major refurbishment/rebuild of their dams in Wales was in the late 1980's and early 90's where 6 of the reservoirs required significant investment.

Several of the dams were constructed during a similar time period which means they are likely to need investment at a similar time in the future.



At the moment, Severn Trent have to phase the investment based on risk and also managing the impact that this will have on customers' bills.

Our risk assessments show that investment is likely to be needed at several sites over the next 10-15 years to comply with the legislation and to keep pace with the developing risks.



## Scenario 1: reservoirs

### Initial thoughts

(before potential solutions were shown)

Almost immediately, participants wondered what an investment of this scale would mean from a bill payer's point of view, as for the majority it was clear that this scenario will require a significant investment.

Although it is expected to be very expensive, there is a great overall appreciation that this is something that needs to be acted upon.

The vast majority of participants would expect ST/DVW to **maintain and spread the cost of this investment over time**. In fact, many hoped that this had already been considered before now, and that current customers' bills already reflect this type of investment.

It should be noted that FBPs struggled to get involved in the discussion for this scenario; it seemed they were not entirely sure on the impact or reasoning behind bringing investment forward, which makes sense considering they are yet to understand the importance of managing bills in the same way that current bill payers are accustomed to.

*You would like to think that your current bill already reflects investment into infrastructure like this. **ABC1, ST***

### How quickly should ST/DVW act?

Customers want to avoid any surprises! Many comment that investments of this type should not be a surprise to the water company, and hence they should be planning way in to the future to deal with them.

It is hoped that ST/DVW would have **already started to put things in place** in order to spread the cost over the next 10-15 years.

**If this scenario was affecting a neighbouring area but not their own, their opinions would not change, as they expect it will affect them personally eventually anyway**

## Scenario 1: reservoirs

### Preferred solution

#### Option 1

ST/DVW would look to carry out maintenance work as driven by their year on year inspection programme.

This could result in bigger increases in bills in the future.

#### Option 2

ST/DVW would bring some investment forward to better smooth the investment and bills over time.

#### Option 3

ST/DVW would bring the majority of the investment forward which would result in a bigger step up in bills now and allow a reduction in bills in the future.

### The majority viewed option 2 as optimal

A reactive approach to this scenario is deemed completely unacceptable; participants view this as irresponsible, and are very aware that this would result in disruption and bill increases in the future.

Considering investment across several sites is required over the next 10-15 years, it is not viewed as necessary to bring the entire investment forward; spreading the cost over time is considered the most appropriate and cost-effective approach.

DVW customers were slightly more *open* to option 3 compared to ST customers, mainly because questions around shareholder profits were more prevalent here and how they could be used to bolster some of the required investment for Option 3. However the consensus across both groups was that option 2 is most appropriate for this particular situation.

## Scenario 1: reservoirs

### Preferred solution

*Future performance is indicative of past performance, so you know that a dam of a similar age and size and type will require maintenance at point X... you would just build this into the plan. I don't see why I should have to pay for something that should have been accounted for. They should have known this when they put them in in the 80s.*

**ABC1, DVW**

*I think a levelling of the playing field so that there isn't big price hikes now makes sense, because I don't think the public would understand... I don't think option one is the right option to take. I think option two, if you do it over a length of time, I think it's a better way of doing it and there's no huge increases in bills.*

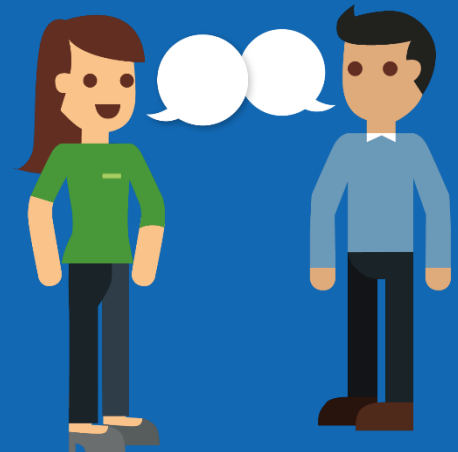
**NHH (restaurant), ST**

*[my answer wouldn't be different if this was effecting a neighbouring area], because it's an overall thing, at the end of the day. It could be me one day, couldn't it? There could be something in my street, not somewhere down the road, round the corner.*

**NHH (retail), DVW**

*Well, I would imagine that they would start to maintain now. Get started and do, what's the word, you know a timetable where they're going to work on what and what they're going to spend on it. They obviously have to do an assessment.*

**NHH (Health), ST**



## Scenario 2

### Scenario 2: Lead



#### Lead pipes

Water leaving the treatment works is virtually free of lead, but small traces can sometimes be picked up as the water passes through old lead pipes.

This generally only affects properties built before 1970 as those built since are likely to have plastic or copper pipes.



#### Lead in drinking water

There are strict regulations concerning the amount of lead allowed in drinking water.

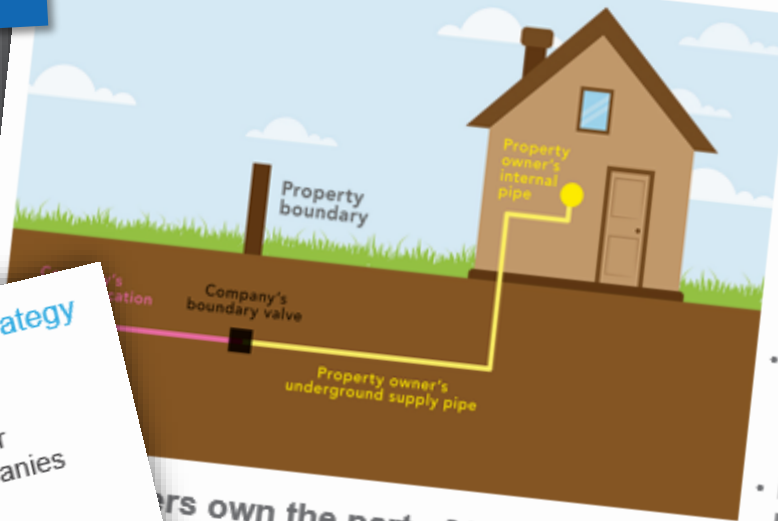
Public health officials are currently considering tightening the current standard and this is likely to come into force in 2030.

To check levels of lead, random samples are taken at customers' taps to check if standards are being met.

When the Drinking Water Inspectorate published its last data, it showed that all tests passed the current compliance standards for lead in the areas that Severn Trent supplies in Wales.

## Scenario 2

### Scenario 2: What your water company does now



Currently Severn Trent will replace their lead pipes when:

- other work on the pipes is being carried out (e.g. fixing a leak or installing a water meter)
- a customer replaces their own supply pipe
- testing reveals that the amount of lead in the water is higher than the limit.
- If testing reveals that the amount of lead in the water is higher than the limit, we will replace the 'pink' pipe and advise customers on what to do about their 'yellow' pipe

### Scenario 2: Welsh Government strategy

The Welsh Government in their Water Strategy for Wales have urged companies to do more:

*"We must aim to keep exposure to lead as low as reasonably practicable therefore we will consider management options to reduce exposure to lead and related health effects."*

Customers have voiced their support for reducing the amount of lead in water.

Severn Trent could do more, but this could increase disruption for customers and increase the cost of the water bill.

## Scenario 2: lead pipes

### Initial thoughts

(before potential solutions were shown)

From the outset it was clear that there was very limited awareness of tighter lead level restrictions and the existence of lead in pipes.

The scenario makes participants question what the extent of the problem is, i.e. how many pipes would fail these new regulations, and hence how much disruption there would be.

Participants therefore agree that increased and more active communication on this subject is important, as well as increased testing, so that customers are then able to decide for themselves how they will personally deal with the situation (it is clear customers feel more connected to this scenario, considering they are responsible for replacing their own pipe if required – a little known fact!).

Customers with young children and/or grandchildren were particularly passionate about this subject; they expressed concerns over safety.

### How quickly should ST/DVW act?

This is something that is seen to be an issue that needs action as soon as possible.

The key takeout from these initial discussions was that customers want to know whether they are going to be personally affected i.e. will it mean that their own pipes may need replacing? How will this process work?

*I think it's important to educate and to make it public so that people actually know exactly what it is that they're doing, so that people understand why there may be disruption.*

**NHH (Health), ST**



## Scenario 2: lead pipes

### Preferred solution

#### Option 1

Offer all schools and nurseries (between 400 and 500 properties) to be tested against the tighter proposed standard and inspected for lead pipes (ahead of the likely legal enforcement by 2030) and offer replacement if lead pipes are found.

#### Option 2

As option 1, plus there will also be proactive targeted replacement in a few hot spot areas where samples are only just complying with the current standard. Improved awareness and education about lead in water and what options are available.

#### Option 3

As proposed in Option 2, plus proactive investigation and support for all household customers where sample exceeds proposed new limit (5ug/l).

### The majority viewed option 3 as optimal

Considering customers will have to pay to replace their own pipe if failing new regulations, they want to understand whether they will be personally affected so that they are able to prepare (rather than finding out when it is too late).

Option 3 is also preferred due to concerns over health risks (particularly for those with young children / grandchildren). This issue just commanded greater perceived importance than the reservoir issue.

Some also felt home owners should be made aware if their house is at risk of failing to meet the new proposed standard when selling/ buying a property.

**Note:** no significant differences in opinion were observed between DVW & ST customers.

## Scenario 2: lead pipes

### Preferred solution

*Well, I would say more active communication to understand the problem. Obviously, if the lead pipes are deteriorating and they're causing a health hazard, they have to do that whether it's a vulnerable customer or not. Everybody's vulnerable if it's poison, you know. So to do with communication and targeting whether the lead exposure is well under standard really, and just making it standard.*

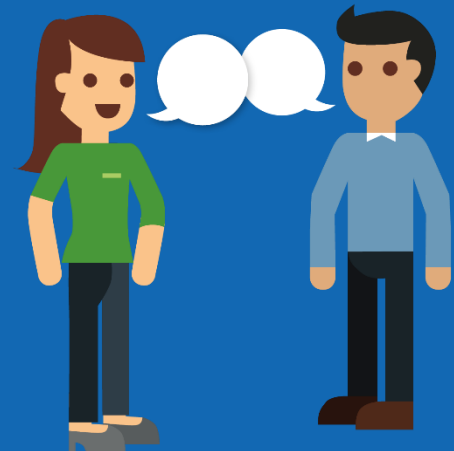
**NHH (health), ST**

*I think the problem is this will end up coming into searches for your property so when you come to sell your house. It will be 'you've got lead pipes' or 'you might have lead in your water', and then your house that might have been okay to sell might not be now.*

**C2DE, DVW**

*People don't know about this, to start with... The legal limit they're going to have to adhere to is going to have to be done eventually, anyway. So actually finding that out, and analysing the costs necessary to do that is going to be useful for the company as a whole, as well as individuals.*

**ABC1, DVW**





# Measuring success

## Scenario 2: lead pipes

Participants were shown a number of different options for how ST/DVW could measure performance, and asked whether they had any other suggestions...

- 1 Changing pipes is disruptive – so we could get customers to rate us on job satisfaction
- 2 Be assessed against the number of properties where the company has replaced their lead pipe
- 3 Be assessed against the number of properties where the company has replaced their lead pipe and the customer pipe has been replaced



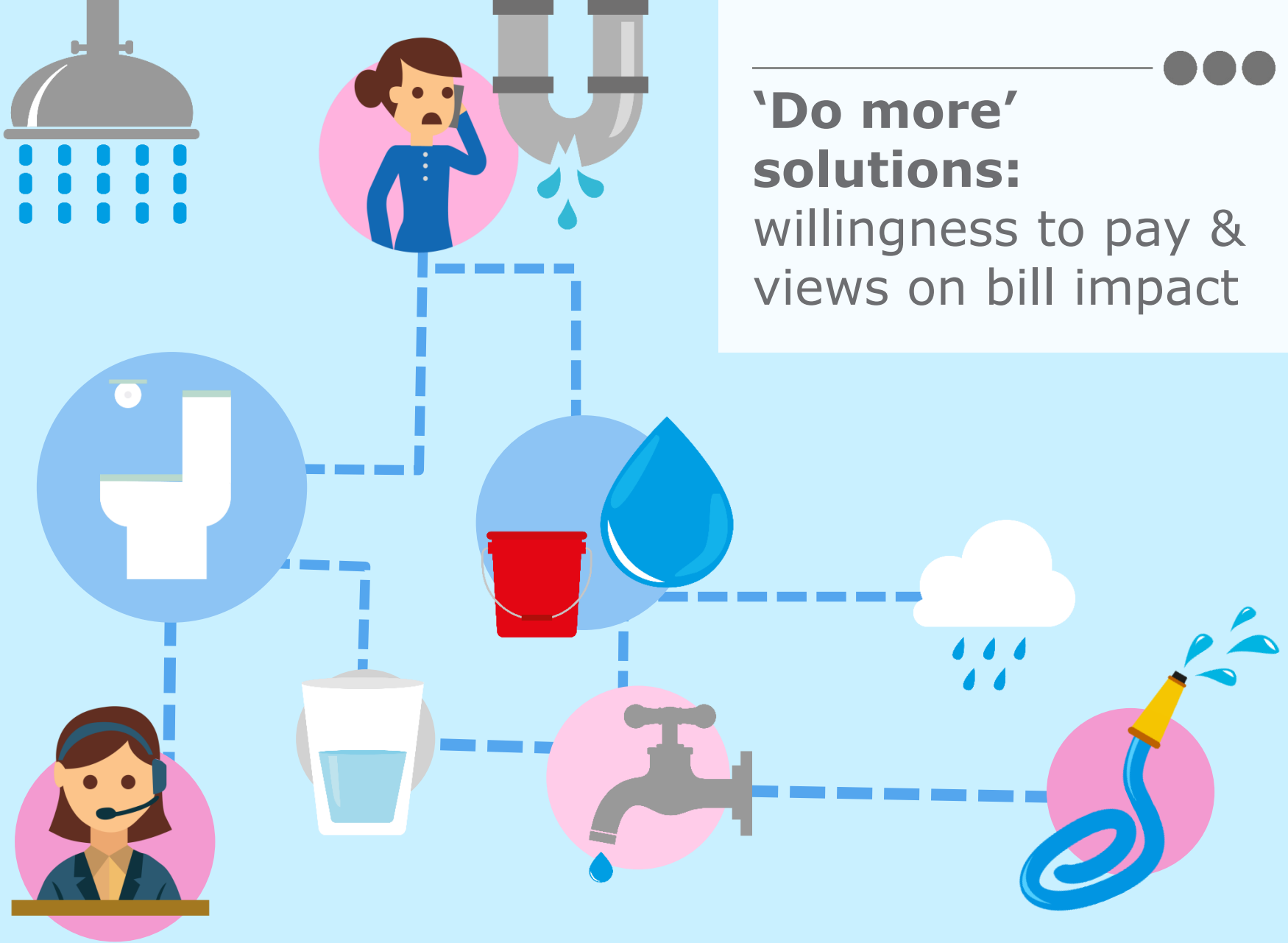
Overall it was felt that these suggestions could be useful, though at this stage it is difficult to tell.

It is felt customer ratings on job satisfaction is very subjective, and some question what exactly they would be rated on.

Participants found it difficult to think of any other suggestions, though one business owner suggested social media as a way of communicating and setting up discussions.

...

**'Do more'  
solutions:**  
willingness to pay &  
views on bill impact

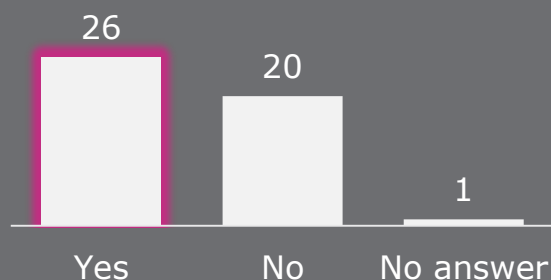




# Willingness to invest

Before showing the actual bill increase, participants were asked whether they would be willing to pay more on top of their annual bill to fund the 'do more' solutions, and if so, how much. It is interesting to note that just over half would be willing to pay more to bring the reservoir investment forward, whereas two thirds would be willing to invest in more proactive investigation into lead in pipes

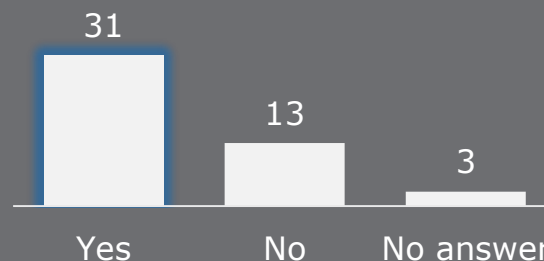
## Scenario 1: reservoirs



willingness to invest

An average of **£28.50**  
on top of their annual bill

## Scenario 2: lead pipes



willingness to invest

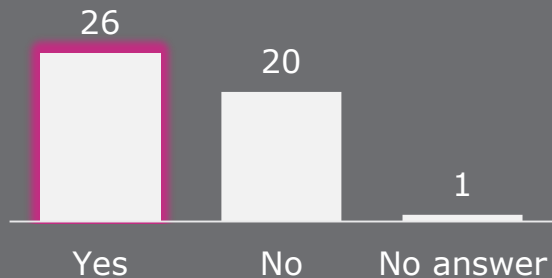
An average of **£19.80**  
on top of their annual bill



N.B. A willingness to pay more for reservoirs vs lead pipes is likely due to the perception that this would be a more costly investment generally.

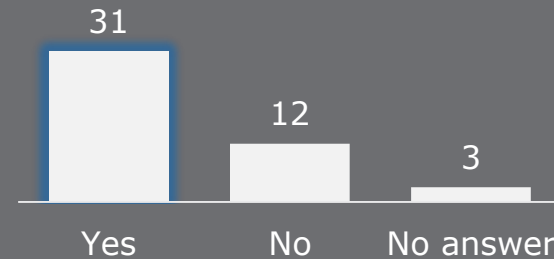
# Willingness to invest

## Scenario 1: reservoirs



**willingness to invest**

## Scenario 2: lead pipes



**willingness to invest**

It was clear participants felt more invested in the lead pipe scenario due to the possible need to personally fund replacement of their own pipes and the potential health risk, and hence this was reflected in the willingness to pay results. Although just over half said they were willing to pay more to bring most of the

reservoir investment forward, these participants still maintain that a steady investment over time is preferred.

However, participants' willingness to pay more comes with a caveat: it was raised numerous times that customers would like to be kept abreast in terms of exactly what their investment is being used for!

# Bill impacts

After discussing willingness to pay more to fund the 'do more' solutions, participants were shown the actual bill increases...

## Scenario 1: reservoirs

### Option 3

Dee Valley would bring the majority of the investment forward which would result in a bigger step up in bills now and allow a reduction in bills in the future.

**This will result in an increase in the average annual bill of £4 (1.6% for businesses)**

## Scenario 2: lead pipes

### Option 3

As proposed in Option 2, plus proactive investigation and support for **all household customers** where sample exceeds proposed new limit (5ug/l).

**This will result in an increase in the average annual bill of £4 (1.5% for businesses).**

*I think like anything, if it needs to be done then it needs to be paid for. And they have to provide a safe service, so if it's an extra four pounds on the bill, then it's four pounds you know. It's still less than a glass of wine in the pub.*

**ABC1, ST**

Considering many were willing to pay more than £4 per investment, the actual bill increases were a welcomed surprise and were considered more than reasonable for the majority (though communication on exactly how this additional money is being invested would be crucial in order to maintain trustworthiness!).

# A final note!

**Although generally there is a willingness to pay more for 'do more' solutions when considered necessary, it is important to reinforce the clear preference of maintained and stable investment over time.**

Although many state they expect their water company to adopt more of a proactive approach, they expect this approach to already be reflected in their bills currently, and hence have a preference for steady bills.

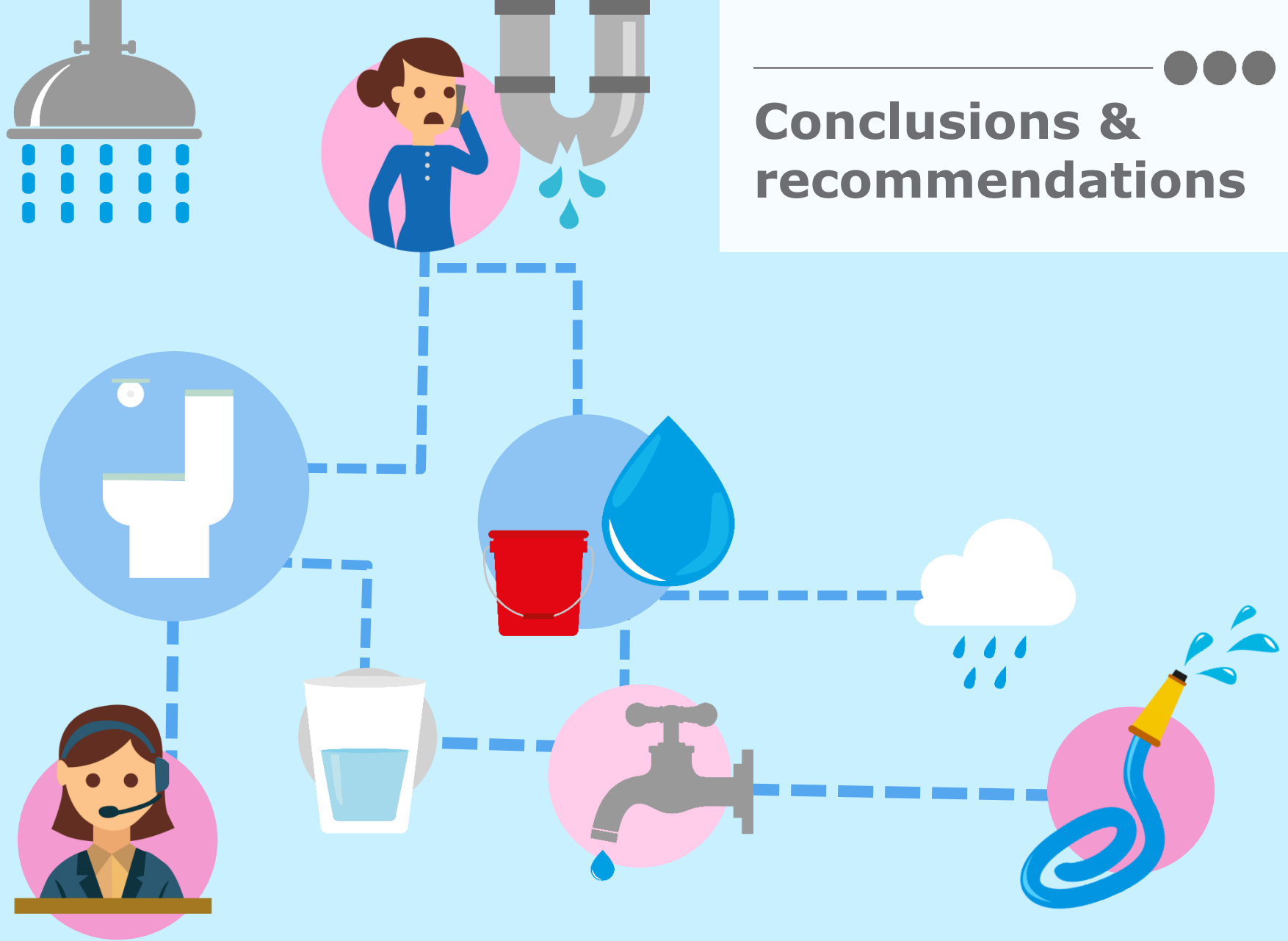
The key priority for customers is to avoid any surprises (i.e. bill spikes) so that they are able to budget more easily over time.

*I like consistency every month to pay the mortgage and the bills... I try to save on energy bills but you can't do that with the water bill*

**C2DE, ST**



# Conclusions & recommendations



# Conclusions

Most customers have a good grasp on the basic services that they are receiving from their water company. However, it was not common knowledge in Wrexham that DVW do not supply wastewater services, and there were also some questions around DVW/ST's goals of promoting thriving communities/environments.

There is therefore scope for improved education in regard to DVW/ST's responsibilities beyond water supply.



DVW/ST is generally viewed as a trustworthy company, with most participants scoring 8+ out of 10. A reliable service alone does not necessarily instil trust, and very high or very low scores were often driven by previous experiences with their water company when an issue had arisen.

Good communication, along with a local, friendly service were often referenced by high scorers, and hence DVW/ST should look to continue this level of service.

Despite claiming that participants themselves would only tend to jump into action and contact DVW/ST re. a leak in the road if it began to personally become a problem for them, this wasn't illustrative of a 'laissez faire' attitude towards asset health and risk. Indeed, customers want DVW/ST to be working hard to, *at the very least*, maintain current levels of asset health and service, but ideally push to improve them.







## Conclusions (2)

When discussing investment into large infrastructure such as reservoirs, participants are very much in agreement that DVW/ST should aim to maintain these assets and spread the cost and labour over time (and expect their current bill to already reflect this type of investment).

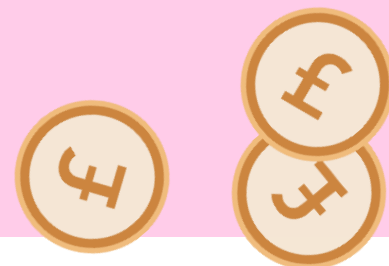
Whereas for the lead pipes scenario, there was the desire for a more proactive approach; customers want to know whether they will be personally affected, particularly considering they are responsible for replacing their own pipe if required (a little known fact).

Another thing to note is the limited awareness of tighter lead restrictions and the existence of lead in pipes, meaning increased communication on the matter would be welcomed.

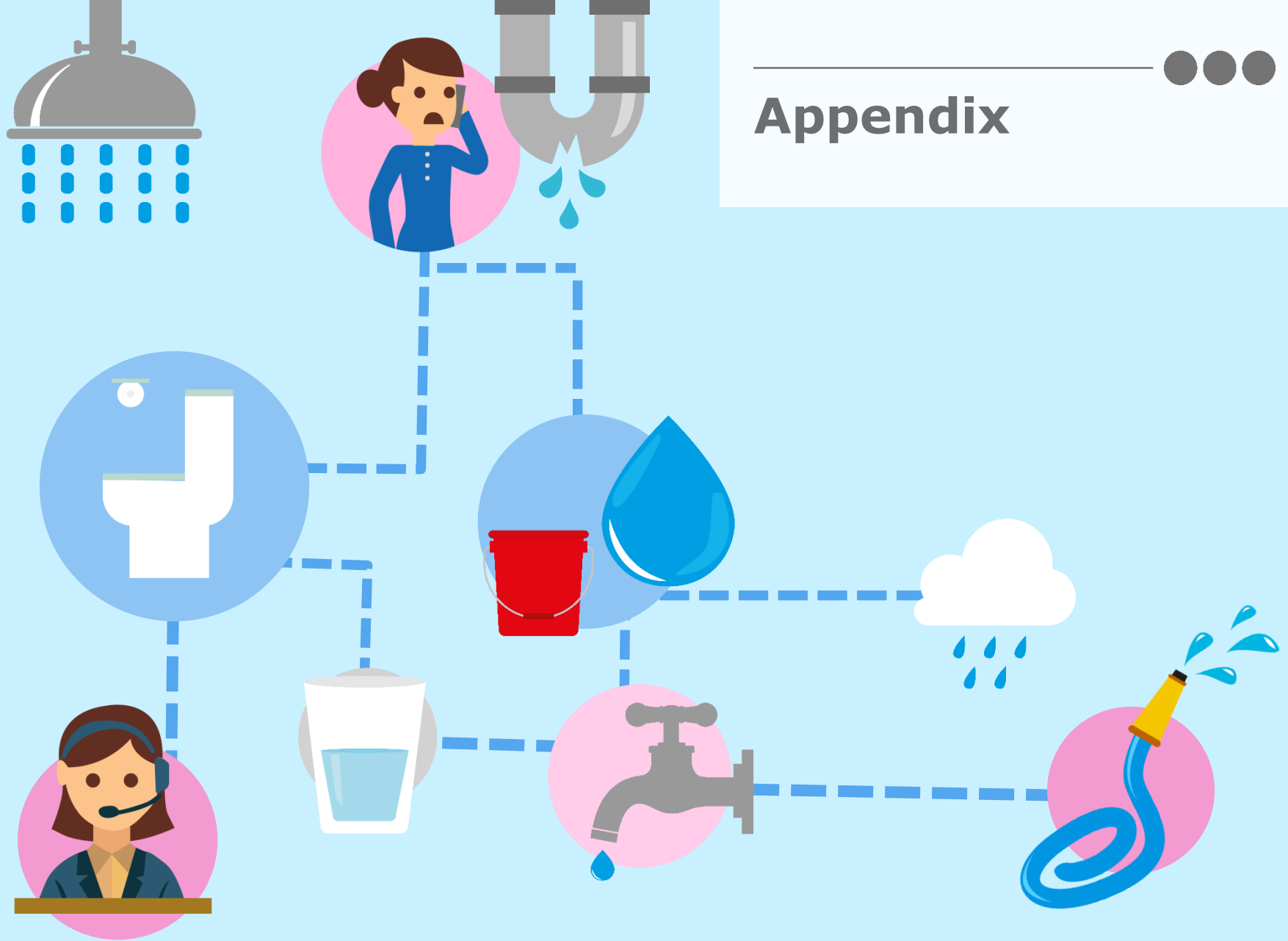


Just over half of participants were willing to invest in reservoir maintenance, whereas over two thirds were willing to invest in proactive lead pipe investigation.

When planning investment it is clear that there is a strong sense that customer preference would favour stable bills over time, to avoid any surprises/bill spikes in the future.



# Appendix



# Well-being Act: a good thing to have?

Overall, participants believe the Well-being Act is **good for Wales**, and feel that **all businesses should definitely be working towards the stated goals**. Some state that it can help businesses consider their actions more, and makes them more accountable.

The overall consensus is that **water companies should still work towards these goals** even though they are not technically bound by them (particularly for those who question why water companies are not public bodies in the first place).



# Any questions?

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