





Agenda

What we'll cover today...

Why we researched this topic, what we researched and who we spoke to

A quick summary of our findings

A closer look at our participants and their world

The learning
Journey... how do
hearts and minds
change when
presented with the
facts

Decision Making...
what are the desired
outcomes after
reading the
information

Final considerations and a look at what our participants thought of taking part in this research

Background





Background and objectives...

Project Background

- Factors such as heavy rain and sewer misuse can cause sewers to be overwhelmed. Sewer overflows help by releasing excess water into rivers or the seas: without them, there is a greater risk of flooding, and of sewage spills affecting streets and homes. Effects of climate change and population growth increase the risk of number of overflows in the future
- Although the use of sewer overflows is legally permitted there has been much reported in the media on the topic and there are concerns that customers may have strong views on the subject and will want to see action from United Utilities to resolve this in the future
- United Utilities hasn't researched sewer overflows with customers in depth before and therefore little is known about what customers really think about the topic. Research was commissioned to understand this better

Research Objectives

- Explore level of engagement and understanding of sewer overflows before and after they are informed
- Explore how much of an issue the topic of sewer overflows and environmental impacts really is in the day to day experience of customers
- Understand customer opinions on what actions should be undertaken to reduce the impact of sewer overflows and where the responsibility lies
- Explore customers' expectations regarding investments, time and potential disruption when addressing the problem

Recap of the options...

Reduce the number of spills

Currently sewer overflows spill around 5 times on average a month in the North West.



Reduce number of spills to 40 a year Reduce number of spills to 20 a

year

Reduce number of spills to 10 a year

Reduce number of spills to zero

Reduce aesthetic impact of overflows (litter and odour)

Sometimes overflows will spill because the sewers have become blocked due to wipes or other expected materials being flushed down the drain or during heavy rainfall. When storm water contains such 'unflushable' items this can result in sewer litter spilling to the water environment, spoiling the natural amenities and beauty spots as the litter is visible in the water and on riverbanks. UU tries to encourage customers to only flush the 3 P's (pee, poo and paper) to help prevent litter entering the sewers and causing blockages.



Reduce impact on water quality and the environment

Research shows 47 river stretches in the North West (out of 499) where storm overflows are believed to be having an impact on water quality and therefore may negatively affect wildlife that depend on these rivers. Run-off from farmland and urban areas can also result in poor water quality.



Reduce risk of users of recreational waters becoming unwell due to overflows

In the North West there are 29 designated Bathing Waters these are mostly on the coast like Blackpool, Morecambe and Southport but we also have 4 inland bathing waters on Windermere. These bathing waters are safe for people to swim and bathe in. United Utilities has invested millions of pounds to improve the water quality at these designated bathing waters, in addition, on our website we have an interactive map where you find information about water quality at designated bathing waters and potential risks to water quality from overflows.

Rain water runoff from farmland used for livestock grazing, spills from overflows and other sources can contain bacteria which could make bathers unwell. At designated bathing waters bacteria samples are taken to inform bathers of the water quality so that they can make an informed choice whether to use the facilities or not.

What we did...

Stage 1



A four day online pop up community with representatives of the target groups (see sample p4)



Conducted between Monday 6th and Friday 10th September 2021



69 free found participants took part. They completed a screening questionnaire to determine their attitudes to the environment, their community as well as their experience of flooding

Discussion flow

Participants were given bite sized pieces of information about Sewer Overflows over three days before being shown four possible options that would tackle this issue

- Day 1 Existing knowledge and understanding of UU and sewer overflows
- Day 2 Understanding the reasons for spills
- Day 3 Impact of sewer overflows
- Day 4 Options to address

Stage 2



7 digital focus groups to further debate in person the topic of sewer overflows



Conducted between Thursday 16th and Wednesday 22nd September 2021



48 participants who previously completed the pop up community took part in the focus groups .

Discussion flow

Participants were given one of the four options to discuss in the session. They were asked to argue that their option was the one that provided the most benefit

The exercise was designed to encourage debate about the pros and cons of each of the options and to stress test what the group truly believes is the best outcome and what option would best deliver this.

Sample – the basics

Participants were extensively screened to ensure they fitted into the relevant group



Environmental

- 10 participants aged between 27 69 years old
- Mix of life stage and employment status
 - 50/50 gender split
 - Spread of social demographics and incomes
- Mix of locations across the North West with people living in both urban and rural settings



Flooding

- 10 participants aged between 28 69 years old
- Mix of life stage and employment status
 - 50/50 gender split
 - Spread of social demographics and incomes
- Mix of locations across the North West with people living in both urban and rural settings



Business

- 10 participants aged between 28 54 vears old
- Mix of life stage and employment status
 - 50/50 gender split
 - 7 small business owners, 3 medium business
- Mix of locations across the North West with people living in both urban and rural settings



Future Bill Payers

- 10 participants aged between 20 28 years old
 - Mix of life students and full time employed
 - 80/20 female male split
 - C1 social grade
- Mix of locations across the North West with people living in both urban and rural settings



Conventional ABC1

- 10 participants aged between 25 38 years old
- Mix of life stage and employment status
 - 70/30 gender Female/Male spilt
 - B and C1 social grade and incomes
- Full time employees with less financial worries
- Mix of locations across the North West living in urban areas



Conventional C2DE

- 19 participants aged between 23 60 years old
- Mix of life stage and employment status
 - 60/40 female/male gender split
 - Majority have money concerns
- Mix of locations across the North West with people living in both urban and rural settings

Exec summary





Executive overview: Customers want investment for the North West...

Being from the North West impacts on their view of the topic

They feel that the region has been historically under-invested in. When infrastructure projects are undertaken, they are often disrupted by developers who are not considered to have their community's best interests at heart

Having a strong connection to their community makes them more engaged in the topic

There is little understanding of what United Utilities do and little understanding of the water cycle.

As such, most have never considered how they get their water and what happens to their waste

This means that many people start from a very low level of knowledge which makes learning about sewer overflows difficult to understand

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Knowing that sewer overflows prevent flooding means that customers are largely accepting of their use, although ideally there would be an alternative

Learning that a combined sewer system means that sewer overflows are more likely to occur, angers those who generally believe that the North West does not get the same investment as the rest of the country

Executive overview: ...But are reluctant to accept higher household bills



The causes of sewer overspills is alarming and motivates many to want to take action

Blockages in particular are thought to be something that everyone can tackle and more should be done to educate the public

Urbanisation angers some as they believe the North West is being over-developed without any thought of the impact on supporting infrastructure

Climate change is considered to be a huge problem and that the average person is pretty powerless to help

The impact on the environment is a key consideration and motivates many to be in favour of investment

Thinking about wildlife in particular, led many to feel that investment should take place

They also felt strongly about reducing the aesthetic impact of overspills on rivers, although very few are concerned about the impact on recreational users (as they themselves did not use the waters in this way)



Morally, they believe that zero spills is the best option and should be implemented – but the cost and implications are very high

They therefore consider alternatives (e.g. reduce spills to 40 a year, improve aesthetics) that better fit with what they believe they could afford or what they consider fair to pay and how long they would be prepared to be disrupted for

This means that they will opt for options that give some benefit but at a lower personal/ financial cost

Whom did we speak to?

A snapshot of our participants and their world

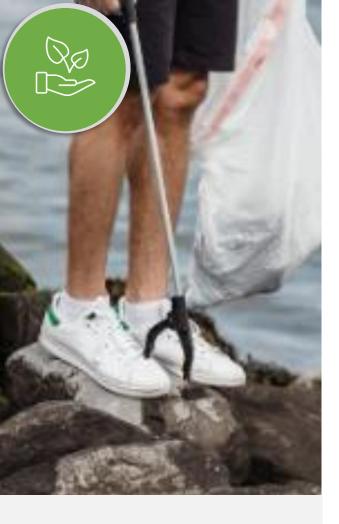




People's opinions and decision making are tied to their experiences of where they live and who they interact with

Being from the North West gives residents a distinct identity, which colours their views and how they interpret the information from this study





Reason for an environment group

To understand if people who actively look after the environment are more likely to be aware of sewer overflows and have strong views on the topic

Environmental:

Actively protecting their natural world by participating in green initiatives

People in this group:

- Take active role in protecting their environment
- Have taken part in campaigns on environmental issues
- Are motivated by stories about the environment and how it can be protected
- Are community minded and are typically involved in local causes

Main priority for Sewer Overspills

To have a short term solution to prevent litter entering waterways, and a long term solution to stop spills altogether

Learning journey snapshot

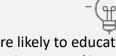
	Low	Med	High
Level of awareness at the beginning of the project			
Level of engagement at the end of the project			
Willingness to invest financially			
Willingness to experience disruption			



Community

- Volunteering and raising money for local causes
- Reporting problems to the council such as broken street lamps of fly tipping

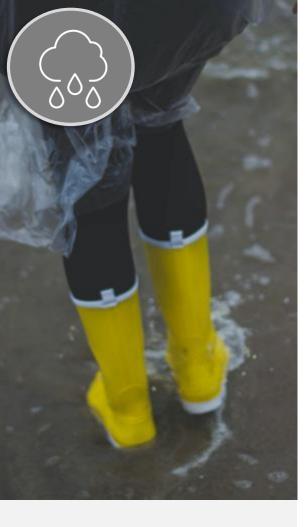
- Actively research businesses and their ethics and sustainability practices
- Live sustainably plant-based diets, reducing what they use and recycling
- Being part of greener initiatives such as green gyms and cleaner street initiatives



Informed

Environmental

- Are likely to educate themselves on environmental issues by watching documentaries and actively searching for information online
- Despite this, awareness of sewer overflows was low



Reason for flooding groups

As sewer overflows help protect against flooding, we wanted to understand how this affected this groups views

Flooding:

Have experienced sewer flooding on their property

People in this group:

- Have experienced flooding and understand how devastating it can be
- Are strongly in favour of investment where they live for the benefit of the community
- Feel that not enough is being done to prevent flooding in the North West

Main priority for Sewer Overspills

Zero spills in the future, but would prioritise improving aesthetics by preventing litter getting into the waterways

Learning journey snapshot

	Low	Med	High
Level of awareness at the beginning of the project			
Level of engagement at the end of the project			
Willingness to invest financially			
Willingness to experience disruption			



Community

- Many volunteer for local causes such as helping in schools or running local sports clubs
- They are likely to have previously campaigned for local improvements or have complained to the local council

Environmenta



- There is some interest in living sustainably through reducing household waste or eating a plant based diet
- They have taken part in cleaner street campaigns



- They have looked into flooding information online - often through United Utilities' website
- Some have read more into the causes of flooding but the term 'sewer overflow' was new to all



Reason for business group

To understand the perspective business owners who are likely to be impacted by some of the proposed options. Would owning a business affect their decision making process?

Business:

Have average/low engagement in environmental issues but run a business in the North West

People in this group:

- Own a business and/or have responsibility for utilities including water
- They feel strongly about the communities they operate in and take part in activities that support local initiatives
- They have strong views on how much investment the North West receive and are critical of government
- They're likely to consider the economic value of investment over the social benefits

Main priority for Sewer Overspills

Zero spills – although this is the most costly, once it is done the sewers will be fit for purpose

Learning journey snapshot

	Low	Med	High
Level of awareness at the beginning of the project			
Level of engagement at the end of the project			
Willingness to invest financially			
Willingness to experience disruption			



Community

- Active members of their community are likely to be involved in local initiatives such as running sports clubs or raising money for charity
- They are interesting in local politics and are likely communicate directly with the local council on community issues

<u>Environmental</u>



 They take part in fewer environmental initiatives, but some are interested in investing in renewable energy for their homes and businesses

nforme

 They have searched the potential impact of flooding on their homes and businesses to ensure they are not at risk



Reason for FBP Group

Although this group are not themselves paying customers it was important to understand the views of the future generation to better understand what they expect from their water company on this longterm issue

Future Bill Payers:

Currently live with parents, student accommodation or rented accommodation where bills are included

People in this group:

- Are the least engaged with United Utilities and the topic of sewer overflows
- They do not want their future bills to be inflated by investment that is needed at the moment
- More people in this group used the waterways recreationally and so there was more interest in water quality than in other groups

Main priority for Sewer Overspills

Zero spills – although they are reluctant to pay for this. This options ensures that the sewers will be fit for purpose in the future

Learning journey snapshot

	Low	Med	High	
Level of awareness at the beginning of the project				
Level of engagement at the end of the project				
Willingness to invest financially				
Willingness to experience disruption				



Community

- Many volunteer on a regular basis with local charities or organisations
- Some are involved with the local council to encourage positive change to their immediate community

- Are likely to make sustainable/ethical choices when shopping
- Many are vegan/vegetarians for environmental reasons



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Environmenta

Many take part in recreational activities in the water (more so than other groups) but none have done research into water quality or flooding



Reason for Conventional ABC1

This group represents the views of people who are higher income earners with no strong opinions on the environment. To qualify, this group could only take part in a few environmental initiatives and no specialist knowledge or UU

Conventional ABC1

Higher income earners with low/average engagement in environmental issues

People in this group:

- Have weaker ties to their community (not living near family or plan to move in the future)
- Have demanding jobs and are often time poor
- Were more likely to think of cost benefit to themselves rather than considering the wider community
- They were the only group to reject major work on the grounds of not wanting to experience disruption from building work

Main priority for Sewer Overspills

Ideally reduce the number of spills but dislike the idea of being disrupted or paying higher bills – therefore creating more awareness when spills occur (through signage and an app) would be sufficient

Learning journey snapshot

	Low	Med	High
Level of awareness at the beginning of the project			
Level of engagement at the end of the project			
Willingness to invest financially			
Willingness to experience disruption			



- Some have volunteered for charities or have taking part in local community groups
- Most too time poor to do this

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- Some have taken part in cleaner streets campaigns but active engagement with environmental issues is low
- Very little engagement with sustainability initiatives beyond basic recycling



Environmenta

 Most have not previously looked up information on flooding or water quality and those who have, did so in relation to their own property



Reason for Conventional C2DE

This group represents the views of average people who are mid to low income earners. To qualify, this group could only take part in a few environmental initiatives and no specialist knowledge or UU

Conventional C2DE

Lower income earners with low/average engagement in environmental issues

People in this group:

- Have strong ties to their community often with family living close by
- Likely to have lived in their area for most/all of their lives
- Strong knowledge of local geography and culture
- Passionate about investment in where they live for future generations (despite lower incomes)

Main priority for Sewer Overspills

They want a long term solution to solve the issues completely and to prevent little from entering waterways. They have limited income but feel it is important to solve this problem before it's too late

Learning journey snapshot

	Low	Med	High
Level of awareness at the beginning of the project			
Level of engagement at the end of the project			
Willingness to invest financially			
Willingness to experience disruption			



- Very community focused and want to help improve where they live.
- Will get involved in local initiative and will help out other people in their area

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They are not actively engaged in environmental issues but are alarmed by climate change and what it means for where they live



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<u>Community</u>

Environmenta

- They are aware that flooding is a major problem in the North West with some taking part in the clean up in previous events
- But none have researched flooding and water quality

Their learning journey

How do hearts and minds change when presented with the facts...





Recap of the learning journey...

Participants were educated about sewer overflows, why they are used and their impact on the environment...

















How does your water get to you?





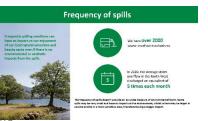


















Many start with little knowledge of the water cycle or UU but are more positive about the brand when educated

United Utilities

I thought they were bigger than that – I thought they did water for the whole of the UK so I'm surprised it's just the North West

Here's what we do...

They do a lot behind the scenes, I don't really think about how I get my water or what happens to the waste

The water cycle

I had no idea how the water cycle works. I thinks this visual is a good way of breaking it all down

How does water get to you?

I hadn't really thought about it before

What happens when you flush?

I hadn't thought about this before because it's probably a pretty unpleasant process











feel

think/say

learn

A rough scope as to the size of their operation, when previously I had no reference point at all. I know they are responsible for my region

That UU clean the water and pursuing all these great initiatives to sustain our community and planet. I feel a bit warmer towards them now

I learned that treated water goes back into our waterways. I had always thought it stayed in some internal system. I'll probably quickly forget the ins and outs of the process though

A lot goes on in the background to get us our water. Its not a simple pipe

That rainwater mixes with our waste, I knew it rained but had never made that connection before

There was little to no prior knowledge about the water cycle and almost zero awareness of sewer overflows across all groups

Environmental

Aware of climate change, the dangers of plastic in the waterways and the need to live sustainably

Some knowledge of the water cycle No knowledge of sewer overflows or spills



Flooding

Some knowledge about waterways and how this can lead to flooding. Some had seen documentaries on sewers
Climate change and heavy rainfall is a concern
Some knowledge of the water cycle
No knowledge of sewer overflows or spills



Aware of plastics in the water and general issue of litter

Some knowledge of the water cycle No knowledge of sewer overflows or spills



Prior knowledge



Future Bill Payers

Knowledge about climate change and most likely of the groups to conserve water, but little knowledge of UU

Little knowledge of the water cycle No knowledge of sewer overflows or spills

Conventional ABC1

Aware of climate change and general need to be sustainable – but do not relate it to their situation

Some knowledge of the water cycle No knowledge of sewer overflows or spills





Conventional C2DE

Most likely to be misinformed on all aspects of the water cycle and UU

No knowledge of the water cycle

No knowledge of sewer overflows or spills

It is challenging to understand sewer overflows without a basic understanding of the water cycle and United Utilities

Explaining sewer overflows to the wider population will need to include the basics...

How do I get my water?



- Knowledge of the water cycle was very low across all groups
- Without this knowledge, there was limited appreciation for the work that United Utilities do
- This makes it difficult for the average person to understand how big a task it is to prevent sewer overspills

Who are United Utilities?



- Some believed that United Utilities were a national brand
- This made them feel that United Utilities may not be fully focused on the North West
- Knowing that United Utilities only operated in the North West made some feel more positive about them and the work they do to supply the region

How do sewers work?



- There was almost zero knowledge across the groups about how sewers work – although some had seen the 'Super Sewers' documentary
- Without understanding the basics they would have struggled to understand how sewer overflows worked

Introduction to sewer overflows

Low awareness of sewer overflows in general, but learning about their use and combined sewers was received negatively

Sewer Overflows

Its good they are getting our views on this and I'm looking forward to seeing what I can do to help

What is it?

Ok, so everything is fine when its dry but when there's lots of rain, it causes problems

Combined sewer network

You know, that doesn't massively surprise me that we have so many combined sewers, there isn't as much funding for the North West so it makes sense our sewers haven't been upgraded

Why sewer overflows

I get why they do it. It either has to go into the river or into our homes. Its just a shame it has to this way

Sewer flooding

I expected flooding to be worse than this though that picture shows you that if its you, it really does destroy your home



What is a sewer overflow?

any of the sewers in England were built to carry both sewage and rainfall which













feel

learn

I'm about to learn about sewer overflows and will help out as best I can

Its inevitable when it rains that sometimes there is going to overflows. The system can't handle it

Most of our sewer system is dated and needs overhauled. At the moment rain water goes into the same sewer as waste but it would be better if it could be separated and taken back to the river rather than overwhelming the sewers

Sewer overflows are a necessary evil. You cant have it going up peoples homes

Sewer flooding isn't as big as a deal as the media makes it out to be. Its effecting a tiny proportion of people/ its unlikely to effect me

Knowledge of sewer overflows was low across the groups but reactions to this information varied depending on outlook

People's reactions to sewer overflows corresponded to their initial views on the environment, their community or their own interests

Environment Focused

Is there an alternative to this?

Concern for what this means for wildlife and water quality as well as the likelihood that this will happen more frequently due to climate change that will most likely result in more extreme weather events







Unfortunate but necessary to protect my community

It is important to protect homes and the community from flooding and it is better to use







on Self Focused

Interesting but this doesn't concern me

It is not something they feel affected by and that if it permitted then it is most likely a satisfactory solution





Many felt angry about combined sewers as it is an example of underinvestment in the North West

The combined sewer system fits with their existing narrative that the North West does not receive proper investment



- Why has investment not already been carried out to rectify this?
- Is this another example of better investment in the south?
- How has our government allowed the sewers to be so out of date?

"This is typical of the North West, investment stops at Birmingham" (Flooding)

- A sewer built by the Victorians will not be fit for purpose
- It is going to rain more in the future with climate change
- The population is going to grow with all the development that is happening

There is a balanced view about the use of sewer overflows and how they prevent flooding

When presented with the reasons for sewer overflows and the impact of not having them (i.e. flooding), most agreed that they were not ideal but necessary to keep people's homes safe

The devastating impact of flood

- Across the groups there is high awareness of the impact of flooding through images they have seen in the media of places in the North West that have been affected
- Therefore they accept that the use of overflows is preferable to the alternative of sewer flooding

4 in every 10,000

- The statistic of sewer flooding was lower than expected
- Therefore concluding that overflows must be preventing sewer flooding events from happening more often

The financial cost of floods

- Those in the business group and conventional ABC1s attempted to calculate the cost saving of using sewer overflows to prevent damage to people's properties
- With the cost of insurance and repairing any damage to public areas they believe that the economic value of using overflows is high

Although only part of the problem, most gravitate towards preventing blockages as a viable solution

Why do they spill?

I think we need education on blockages. I hadn't thought of the other two

Why do sewer overflows spill? Some conforming their order cases a few control on their order cases a few control of their order cases a few control order cases and their order cases are cased to the cases and their order cases are cased to the cases and their order cases are cased to the cases and their order cases are cased to the cases and their order cases are cased to the cases and their order cases are cased to the cases and their order cases are cased to the cases and their order cases are cased to the cases and their order cases are cased to the cases and their order cases are cased to their order cases and their order cases are cased to their order cases and their order cases are cased to t

Blockages

This is obviously a big problem. If we can solve this then maybe we won't need to do any work



Urbanisation and development

There is a lot of development at the moment and I bet those greedy developers don't think about what they're doing to the local area



Climate change

Climate change still feels foreign to me, I don't know what to do about it but it sounds like we need a new sewer system if the storms are going to get more extreme



feel

think/say



Most of the problem is still related to blockages. I can do my part here.
Developers and the government also have a part to play and need to sort out the other two issues which aren't going away

As I thought, blockages are a major problem. UU need to educate the public here so we can band together and get this fixed

Greedy developers need to be curtailed by UU and the government so that proper systems are put in place as our population inevitably grows I understand that climate change is a problem but it feels too big to think about. I dismiss this and concentrate on the other two causes

The causes of overspills are considered unacceptable and many would like to see action taken to prevent blockages and the impact of urbanisation

However, climate change and population growth are largely thought to be too big a problem for any individual to tackle







Blockages

Feels like the easiest win with some believing that preventing blockages would solve the problem

Urbanisation and development

A cause for anger as feels like 'greedy' developers are causing the problem leaving the ordinary customer to 'pick up the bill'

They do not feel that anything they can do on their own property will make a difference

Climate change and population growth

This feels like too big a problem to tackle and difficult to understand so many ignore this (including the environmentalist)

Preventing blockages feels like the easiest way to prevent spills

After watching a video and reading the information, many believe that spills would no longer happen if more was done to prevent blockages



Preventing blockages feels like an easy problem to tackle

- There is a clear cause and effect with fatbergs being a very visible consequence of improper disposal of waste
- There are simplistic solutions that feel attainable such as education around how to dispose of FOG and Rags and fines for those who do not comply



It's a highly visible problem

- Many have seen their local waterways covered in litter but had not previously been aware that it may have come from the sewers
- Nearly all considered the danger of plastic in natural waterways and the damage that can do to wildlife



Could solving blockages be the answer?

- Some believe that stopping blockages will solve the whole issue of overspills
- This view is particularly strong in conventional ABC1/C2DE and the Environmental groups

Urbanisation is a cause for anger as local government and 'greedy' developers are blamed

This issue feels less easy to tackle but many feel that developers are given too much freedom to build without considering their impact on the existing communities

Sense of Community The North West – how it defines itself Distinct cultural identity

 Increasing development has been a cause of anger as it has changed the feel of community in a number of areas particularly in urban settings

 Learning that urbanisation is a cause of overspills angers many as they believe that developers are allowed to do what they want

The loss of UNESCO World Heritage Status in Liverpool is an example of how development is not done sympathetically

Many question what United Utilities can do to influence local government planning decisions and prevent 'reckless' developing

Their own contributions
(natural drainage on their
properties and collecting rain
water) feel tiny when faced
with large scale developments
in their cities and towns

Climate change and population growth are too big a problem to consider

There are concerns in general about what will happen in the North West with the increase in frequency of flooding events, but all feel helpless to act

Many choose to ignore and not engage with the challenge as it feels unsolvable with no clear solutions



Climate change is a complicated topic to understand with many across the groups only having a basic knowledge of what it means for the region



Those who do understand climate change and what it means for the weather are more likely to accept that development of the sewers is necessary due to no other tangible solution available

"The climate change factor is something I haven't considered before, as it's a bit scientific and not something I've thought about, though of course more people creating waste makes sense"
(Conventional C2DE)

"Climate change is serious cause for concern and I think we have to be accountable but as a lay person I have absolutely no idea how it can be altered or reversed" (Conventional C2DE) "More needs to be done to increase capacity (for climate change weather events and the relentless population rise)
I do not feel it is a sensible option to simply ignore these changes and allow additional pollution into our environment"
(Environmental)

Customers are pleased that UU are already investing in ways to prevent spills

What is UU doing?

It sounds like UU are doing what they can here. This is good

Frequency of spills

This went a bit over my head but it sounds like they are discharging too often. How many of these overflows are being triggered?

Quality of water

That's a shame about the fish but its also important to keep the quality up because this water eventually gets given back to us

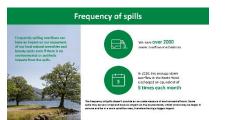
Aesthetics

This is disgusting and needs fixed.
This area is really important for peoples' mental health

Recreational use

That's not great but I think if you are into that kind of thing, you have to be aware of the risks. I wouldn't partake in it myself anyway to be honest











feel

think/say

l learn

I didn't know about all the good UU are doing in the background. I hope they keep this up and get other bodies like the government to help in these efforts I may not have interpreted this correctly but it sounds like the overflows are going off too much. We need to stop this to help the environment

These overspills are killing the fish and damaging our natural habitats. We need to stop the blockages to protect the water quality

I now have a tangible idea of what 'polluting the waterways' will mean for me. It shows that we need to educate the public to stop flushing things they shouldn't

It's becoming risker to be taking part in recreational swimming as a result of the overspills

Many are pleased to learn that UU are investing in solutions but are surprised by the scale of the problem

It is reassuring that work is currently happening to improve the number of overspills, however many feel that the burden of cost should not fall on the consumer



Great the UU are investing in solutions

Customers feel more positive towards
United Utilities about the current
investment but would like more done in the
future to upgrade and future proof the
network

"I think this is great, I'd have expected United Utilities to tackle the issue in a manner of this sort. They have to protect out natural heritage which means so much to millions of people. The amount of overflow mechanisms is far too much for my liking" (Conventional ABC1)



Current spill frequency is too high

Sizing the problem made many across all groups want to see further solutions to reduce this in the future

"I'm astounded there are 2000 overflow mechanisms and shocked that 5 on average discharged. I strongly believe if this information was widely known there would be a reduction. People would be more wary about what they flush and put down the sink" (Rural)



Reluctance to fund improvements

Willingness to pay for works is varied with many across the groups feeling that this should be funded by United Utilities, property developers and central government

"This should be funded by Water Companies in conjunction with Government funding. I appreciate that some of the current sewer networks date back to the Victorian age, but this is not the fault of the consumer" (Business)

All of the impacts are considered to be unacceptable and most feel it is very important to find solutions



Environment and water quality

Learning about the impact on local wildlife was emotive for many across the groups

They are particularly concerned about plastic entering the waterways (although fewer concerns about bacteria)

Those in urban locations already believe that their local waterways are likely polluted and would like to see improvements



Smell and aesthetics

Many did not see this as a 'smell and aesthetics' issue (although some have noticed litter in their local waterways) but believe that by reducing how much litter ends up in the water would improve the quality

It is hard for them to consider that bacteria would still be an issue and that this is potentially more harmful for wildlife and humans



Recreational water use

There is limited empathy for recreational users (unless they themselves use the water in this way)

However, some considered how children are not able to freely use natural waterways due to potential pollution

MOST COMPELLING:

Explaining the impact on wildlife is very emotive and encouraged support for investment

SIMPLEST SOLUTION:

Stopping litter from getting into the sewers feels like an easy win for many

LEAST IMPACTFUL:

Many struggled to care about recreational users – impact on wildlife is a more compelling story

Key information that customers require to understand the need for investment

Customers were exposed to a lot of content that isn't practical for the wider population – but a number of key points helped their understanding most

Untied Utilities and what they do

Introduction to sewer overflows

What are spills and why do they happen?

What is being done to prevent spills

What is the impact?

- UU and the water cycle are not that well known even in groups that care about the environment
- Learning the basics is key to understanding overflows
- Discovering that the North West has the most combined sewers is a cause of anger
- Overflows prevent flooding and keep their homes safe so are necessary

- Preventing blockages feels like a tangible way to improve the situation
- However urbanisation and climate are out of the general public's hands
- Being made aware of work that is being carried out makes people feel more positive about UU
- The size of the problem is alarming

The impact on wildlife

Decision making

What are the desired outcomes after reading the information





Recap of the options...

Reduce the number of spills

Currently sewer overflows spill around 5 times on average a month in the North West.



Reduce number of spills to 40 a year Reduce number of spills to 20 a

year

Reduce number of spills to 10 a year

Reduce number of spills to zero

Reduce aesthetic impact of overflows (litter and odour)

Sometimes overflows will spill because the sewers have become blocked due to wipes or other expected materials being flushed down the drain or during heavy rainfall. When storm water contains such 'unflushable' items this can result in sewer litter spilling to the water environment, spoiling the natural amenities and beauty spots as the litter is visible in the water and on riverbanks. UU tries to encourage customers to only flush the 3 P's (pee, poo and paper) to help prevent litter entering the sewers and causing blockages.



Reduce impact on water quality and the environment

Research shows 47 river stretches in the North West (out of 499) where storm overflows are believed to be having an impact on water quality and therefore may negatively affect wildlife that depend on these rivers. Run-off from farmland and urban areas can also result in poor water quality.



Reduce risk of users of recreational waters becoming unwell due to overflows

In the North West there are 29 designated Bathing Waters these are mostly on the coast like Blackpool, Morecambe and Southport but we also have 4 inland bathing waters on Windermere. These bathing waters are safe for people to swim and bathe in. United Utilities has invested millions of pounds to improve the water quality at these designated bathing waters, in addition, on our website we have an interactive map where you find information about water quality at designated bathing waters and potential risks to water quality from overflows.

Rain water runoff from farmland used for livestock grazing, spills from overflows and other sources can contain bacteria which could make bathers unwell. At designated bathing waters bacteria samples are taken to inform bathers of the water quality so that they can make an informed choice whether to use the facilities or not.

After learning about sewer overflows and spills, each group expressed their priorities for investment and development

Environmental

To have a short term solution to prevent litter entering water ways, and a long term solution to stop spills altogether.

Willing to pay for screens but not willing to pay the full amount for zero spills



Flooding

Zero spills in the future but would prioritise improving aesthetics by preventing litter getting into the waterways

Willing to contribute financially but believe that the government should be funding most of it

Business

Zero spills – although this is the most costly, once it is done the sewers will be fit for purpose

Willing to contribute financially but would want most of the funding to come from **United Utilities and/or government**



Prior knowledge



Future Bill Payers

Zero spills – although they are reluctant to pay for this. This options ensures that the sewers will be fit for purpose in the future **Unwilling to contribute financially**

Conventional ABC1

Ideally they would like zero spills and to reduce aesthetic impact however they are the most reluctant to pay, with some feeling that signage is the best approach

The least likely to contribute – would accept the lower cost options of £5-£15 a year



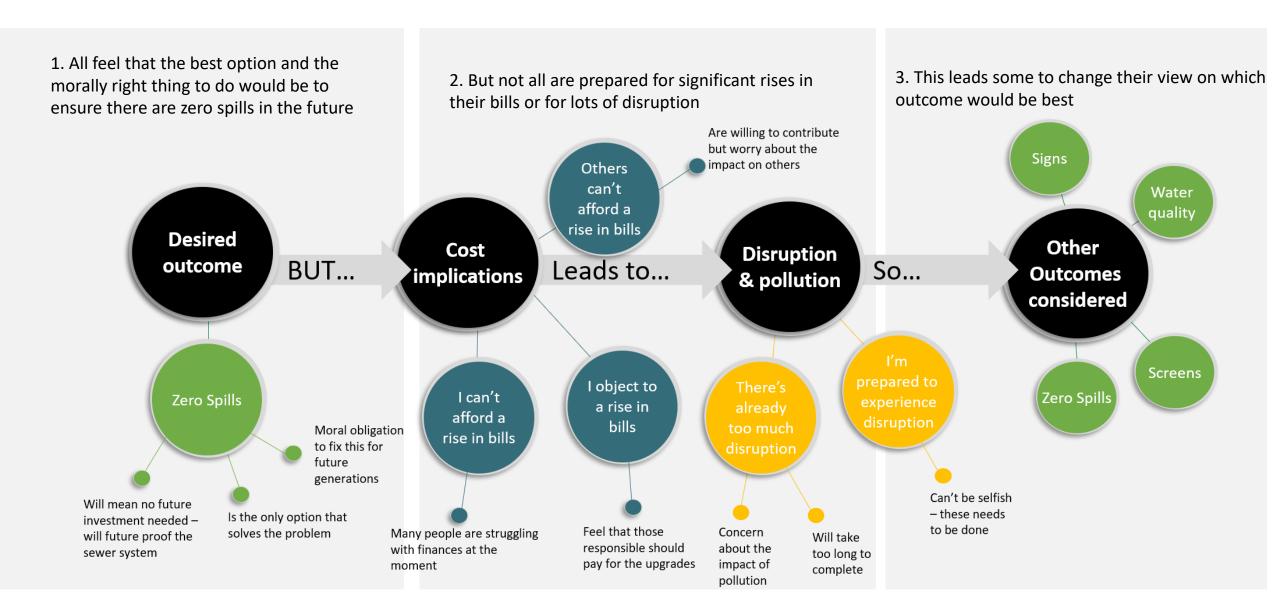


Conventional C2DE

Zero spills is the main priority as it is the only option that provides a robust solution. They are reluctant to have their money spent on less effective approaches

Most willing to contribute financially despite low incomes although they feel it is unfair

Universally across all groups, participants know what the morally right decision is but the price to achieve this is too high for some



Reduce the number of spills

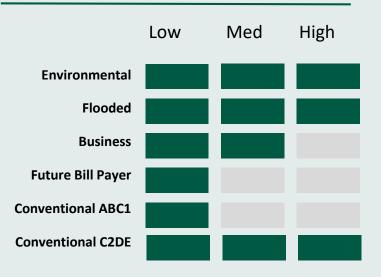
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Reduce number of spills to 40 a year Reduce number of spills to 20 a year Reduce number of spills to 10 a year

Reduce number of spills to zero

Appeal by segment



The only option that solves the problem but the one that comes with the highest cost

What is the thought process for those in favour?

- This is the only option guaranteed to work for the next generation and would future proof the sewer system for future weather events
- It would be one single project that when complete will solve all the issues associated with overspills
- Sustainable drainage appeals particularly to the environmental groups
- The cost is high, but when broken down into 12 months and considering the amount of work involved it is affordable for most working people

What is their thought process for those against?

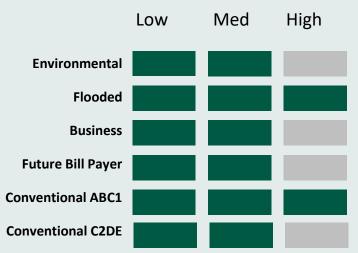
- The cost of the build is the main barrier it is a significant amount of money on people's household bills when money is already tight
- The time the build will take will mean that some of the participants may not live to see the benefits therefore it would take a more altruistic perspective for them
- There is already significant disruption in the North West region (particularly in the cities). Disruption on this scale would be huge and impact daily quality of life

Reduce aesthetic impact of overflows (litter and odour)

Sometimes overflows will spill because the sewers have become blocked due to wipes or other expected materials being flushed down the drain or during heavy rainfall. When storm water contains such 'unflushable' items this can result in sewer litter spilling to the water environment, spoiling the natural amenities and beauty spots as the litter is visible in the water and on riverbanks. UU tries to encourage customers to only flush the 3 P's (pee, poo and paper) to help prevent litter entering the sewers and causing blockages.



Appeal by segment



Is expected to improve water quality for wildlife by preventing plastics getting into the water

What is the thought process for those in favour?

- Will visually look better, less litter in the natural waterways has to be beneficial to all
- Reduction in smells would mean that people who visit these areas can enjoy natural beauty spots more
- Will involve less disruption of most and requires less financial investment there is also more willingness for consumers to pay for this as it is essentially a problem caused by the consumers

What is their thought process for those against?

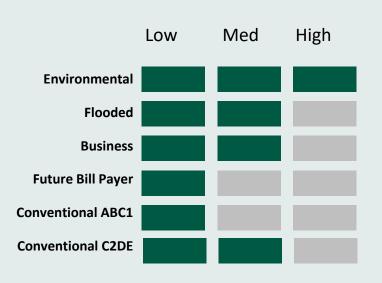
- It will not solve the root cause of spills and therefore can not be the only solution (although could be part of the overall solution)
- It doesn't future proof the sewer system and so is not sustainable in the long term
- There will still be bacteria in the water that can be harmful to wildlife and people however this view was only considered by a couple of participants

Reduce impact on water quality and the environment

Research shows 47 river stretches in the North West (out of 499) where storm overflows are believed to be having an impact on water quality and therefore may negatively affect wildlife that depend on these rivers. Run-off from farmland and urban areas can also result in poor water quality.



Appeal by segment



Would improve the environment but only in specific locations

What is the thought process for those in favour?

- Has strong environmental benefits while leveraging peoples disgust for dirty water
- Promotes more natural ways to solve the issues which appeals to many, particularly those who are more interested in the environment
- Is relatively low cost and takes less time to implement than other options
- Would provide a targeted approach to areas that need investment the most

What is their thought process for those against?

- It will not solve the route cause of spills and therefore can not be the only solution (although could be part of the overall solution)
- Only targeting some areas means that potentially everyone in the North West will experience higher bills without getting the benefits
- Would need transparency on which waterways would benefit how would these get reported and what would it take for a waterway to qualify for treatment?

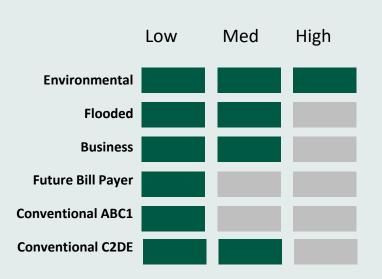
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Rain water runoff from farmland used for livestock grazing, spills from overflows and other sources can contain bacteria which could make bathers unwell. At designated bathing waters bacteria samples are taken to inform bathers of the water quality so that they can make an informed choice whether to use the facilities or not.

Appeal by segment



Would benefit water quality but benefits a specific group of people

What is the thought process for those in favour?

- Improving the water quality would be beneficial for both recreational users and the natural world
- Being able to enjoy the natural waters would be beneficial for mental health
- Was considered important for children to be able to experience the natural waters without worry of illness

What is their thought process for those against?

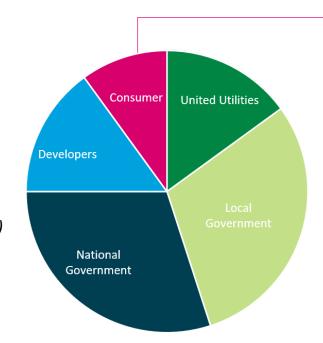
- It will not solve the route cause of spills and therefore can not be the only solution
- Positioning it as something that benefits recreational users makes it sound like not many people would benefit from this
- Unwillingness to pay for something that they may not see the benefit from (i.e. don't want to pay for someone else to go wild swimming)

There is little appetite for increases to household costs therefore all costs to the customer need to be clear on who pays and why

Who is to blame and who should pay?

Across all groups, the idea of higher household bills is not popular. They believe that this issue has been caused by government, made worse by developers and largely ignored by United Utilities – therefore the consumer should pay the least amount towards improvements

Proportion of who should fund the improvements (qualitative assessment)



Consumers are prepared to see some of their household costs go towards this issue, particularly the cost of screens as litter is seen as an issue created by the general public

Other investments are thought to be something that is funded from government, United Utilities and developers who are seen as responsible for the current state of the sewers

By the end of the research, more were thinking about the environmental benefits as well as how the community benefits from improvements

Environmental benefit

After learning about sewer overflows, more considered the environmental benefits and how that would benefit wildlife

Having good water quality and healthy ecosystems would lead to a thriving environment that can be enjoyed at a social level but also help to improve the appeal of the North West

Community benefit

The community and social benefits of investing in the sewer network is still a powerful motivator

Many considered their responsibility to ensure future generations had better water quality and a healthier natural world

They would also like to ensure that with increasingly extreme weather, that the sewer system will be able to cope

Personal benefit

The groups who were less engaged(Conventional ABC1, Some Business and FBP) considered the financial implications of investment to be too high

They would need full transparency of what funds are needed, who is contributed and what the personal benefits to them would be

They are less likely to be motivated by long term projects that they feel they may not benefit from (e.g. if they left the area) and that the impact on their day to days lives through disruption would be unbearable

Final consideration

Creating a discussion about sewer overflows





Whatever option is chosen, the public will need to be carefully consulted on this complex issue

Customers will need the following in order to understand and support any future development and/or rise in costs



Many had little or no awareness of how United Utilities operates or how sewer overflows are used

Being made aware of the basics increases appreciation for UU and improves perceptions of how they benefit the North West



Education/information

The subject matter is complex and requires time to understand however they are key messages that help to encourage support for investment:

- Combined sewers
- The impact of climate change
- Impact on wildlife where spills occur



Engagement

It is important feel that the cost for improvements will be shared and not just for the consumers to fund

The majority feel more engaged with the topic when they can see the benefits to the community so ensuring that messages of shared benefits are dialled up to gain support for investment programmes

Appendix

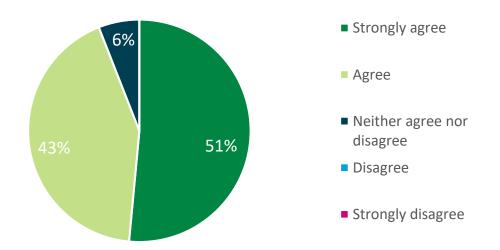
Participants' experience of taking part in this research



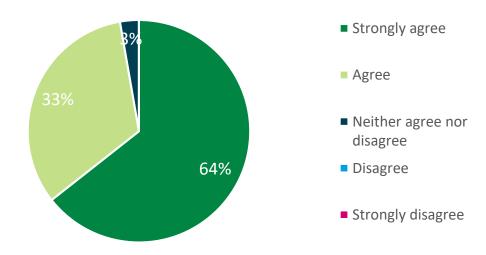


All of our participants had a positive experience taking part in this research and believe it is important to ask their views on this topic

It has been good taking part in this research and sharing my views on this topic



It is important that United Utilities ask customers' views on these issues

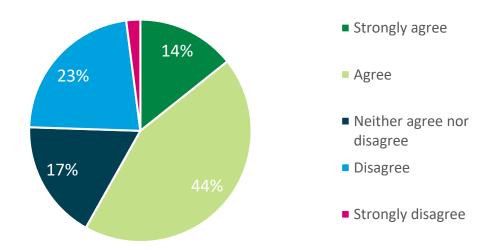


How much do you agree with the statement 'it has been good taking part in this research and sharing my views on this topic?' N=69

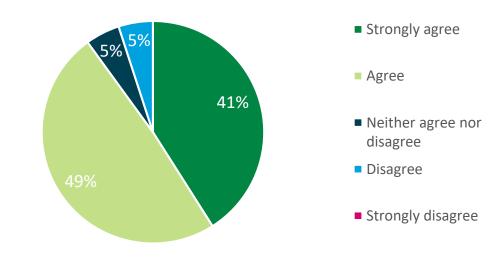
How much do you agree with the statement 'It is important that United Utilities ask customer's views on these issues' N=69

Most agree that the topic is difficult but that they understood the information that was presented to them

It is difficult for customers to give informed opinions on these issues



I feel I understood the issue and the information presented to me



How much do you agree with the statement 'It is difficult for customers to give informed opinions on these issues?' N=69

How much do you agree with the statement 'I feel I understood the issue and the information presented to me' N=69

Thank you

To find out more about this research, please contact **Shy Sharma**:



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