
in the flow
in partnership with United Utilities
Water for the North West
WRMP & DWMP Research
April 2021
InSites Consulting
United Utilities
Water for the North West

Why this research

You are required by Ofwat to publish both a Drainage Wastewater Management Plan (DWMP) and a Water Resources Management Plan (WRMP).

The plans are key components of the wider business planning process and any research for each will be used to support the wider 2025-2030 Business Plan.

Before developing both plans, you want to consult customers and understand which initiatives customers think you should prioritise.

Specifically you want to understand:

- Which service areas and options/solutions are prioritised
- How customers prioritise each option and the factors that come into play
- Views on the potential benefits/challenges of options.

This report covers both the Water Resources Management Plan (WRMP) and Drainage & Wastewater Management Plan (DWMP) initiatives.

How we tackled it

3 week online community

1 Mini-surveys & discussions

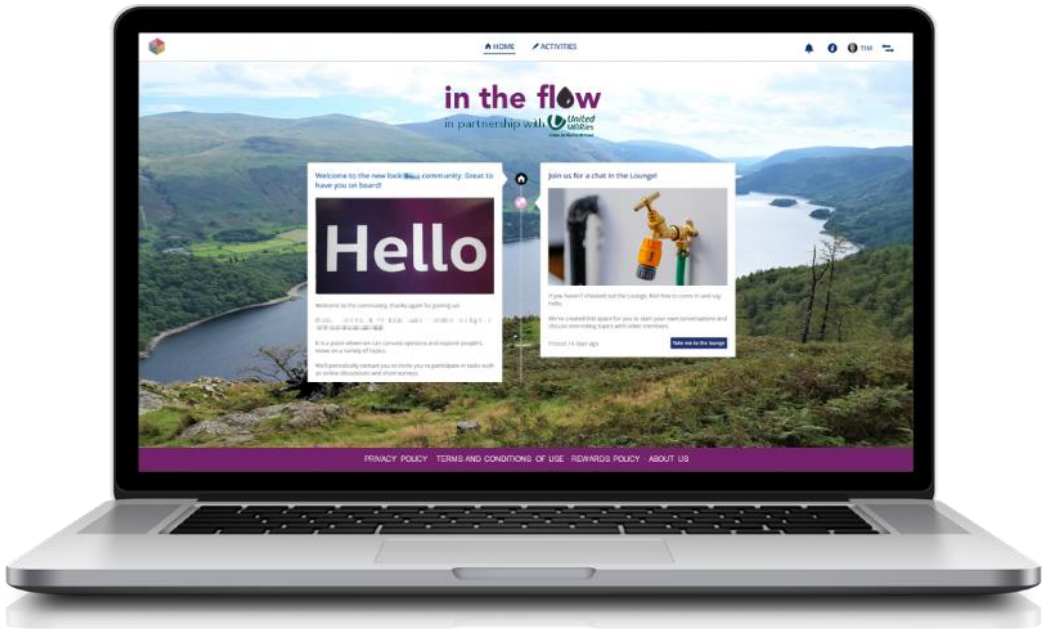
KNOWLEDGE BUILDING

2 Video Groups & Depth Interviews

DEPTH AND UNDERSTANDING

3 Survey

FINAL VERDICT/ CONSENSUS



188 participants overall

153 customers (mix of life stages & household demographics)

29 of whom classified as vulnerable (health, age, income or language)

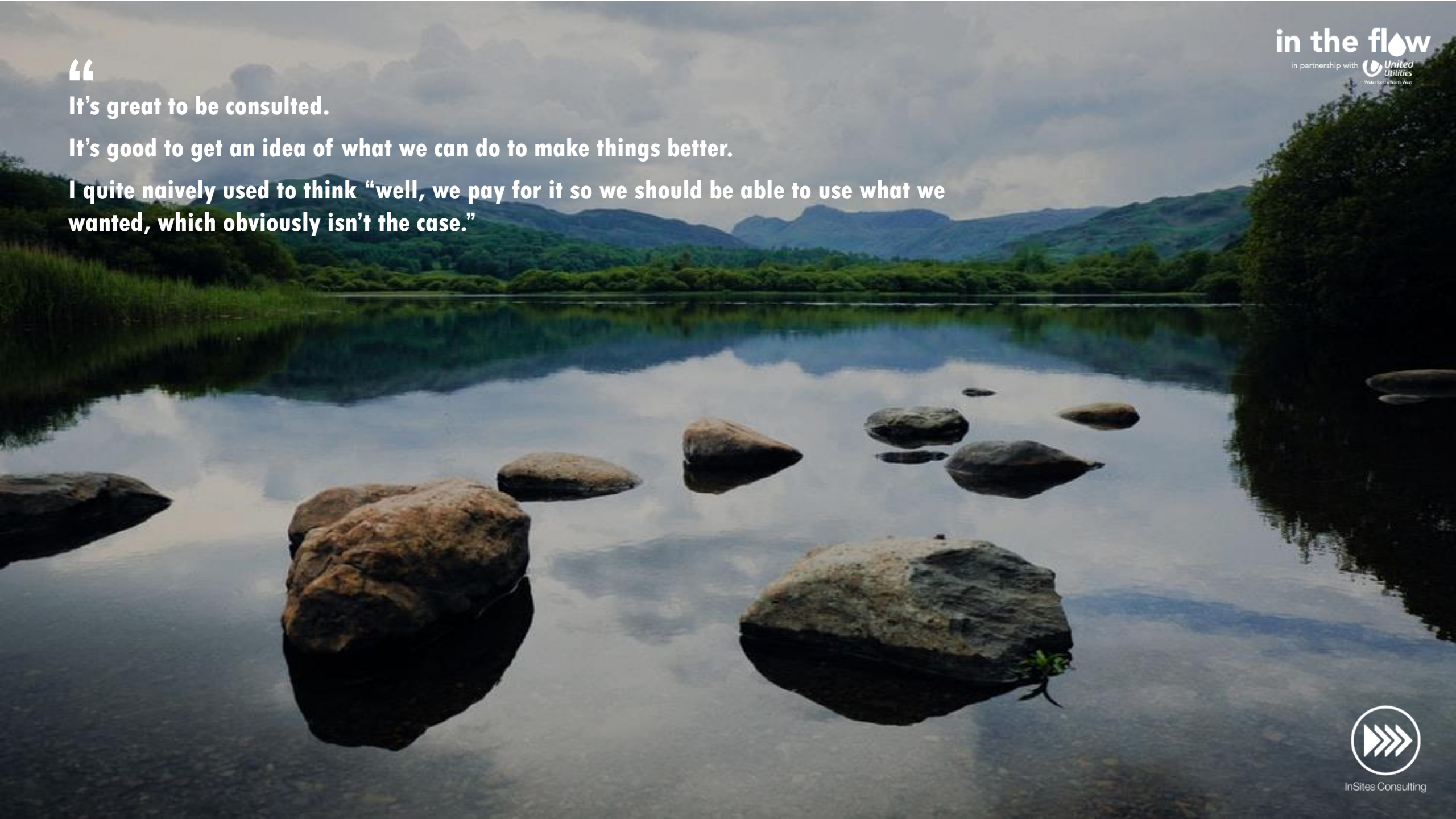
18 business users

17 bill payers of the future.

82% strongly agree it's been good sharing their views on initiatives

84% strongly agree it's important that UU ask for views on these issues

33% agree it's difficult to give an informed view / best left to experts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“
It’s great to be consulted.
It’s good to get an idea of what we can do to make things better.
I quite naively used to think “well, we pay for it so we should be able to use what we wanted, which obviously isn’t the case.”
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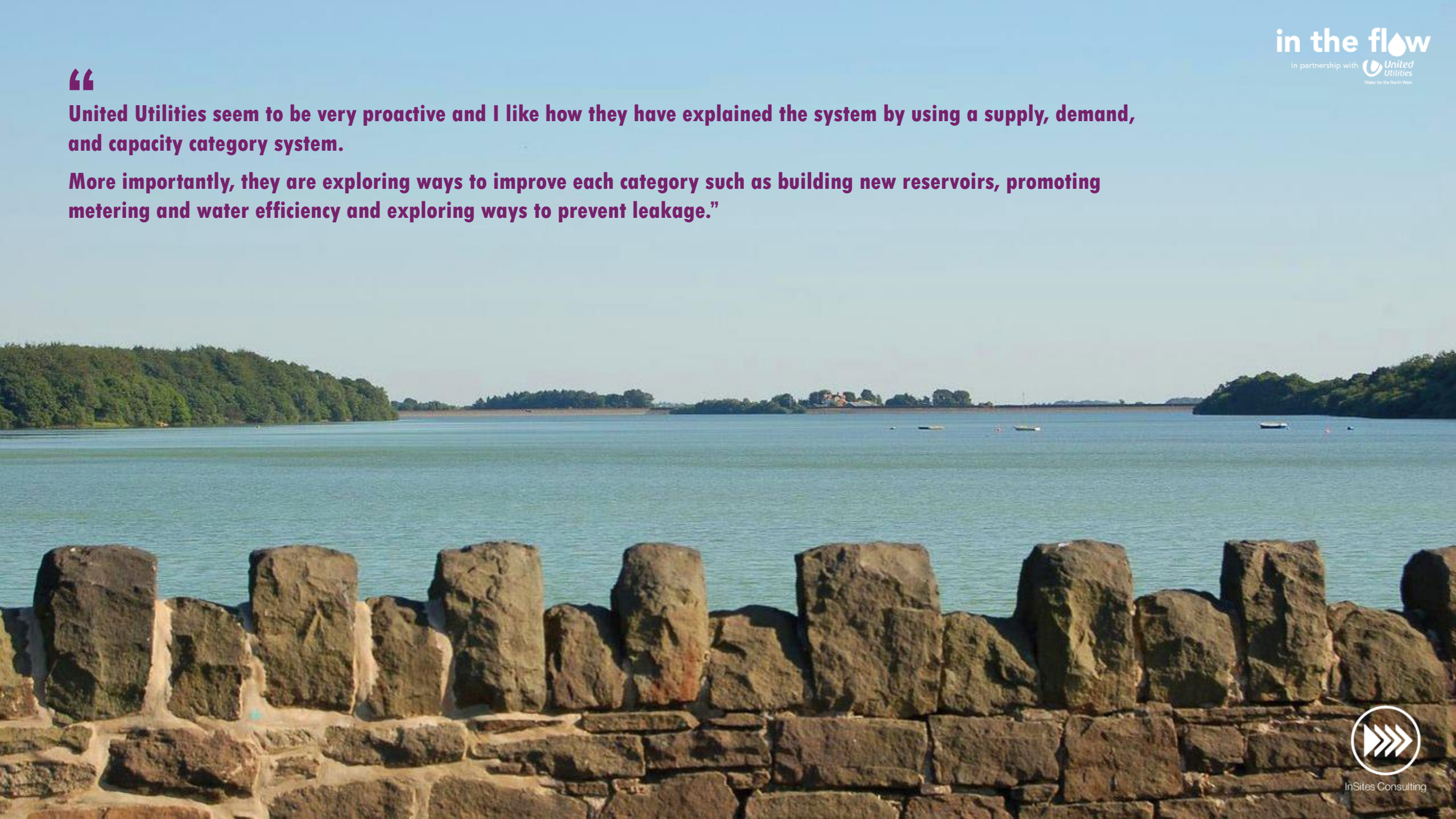
People's starting point

“United Utilities seem to be very proactive and I like how they have explained the system by using a supply, demand, and capacity category system.

More importantly, they are exploring ways to improve each category such as building new reservoirs, promoting metering and water efficiency and exploring ways to prevent leakage.”



People are encouraged to see United Utilities is proactively looking at these issues and exploring solutions

They are also confident United Utilities will find the best way forward

People found the introductory video and background info very clear and informative.

Their main take-outs from it were…

The pressure on water companies to keep up supply (even in very wet areas) as the population increases and climate change has more effect.

The transformation in fast-changing weather conditions.

The amount of water actually used in a single day – huge!

A useful refresher of the water cycle – not something many have considered for years.

Feeling that…

Planning ahead will help ensure continued supply and meet demand.

Educating people about water usage and treatment remains key; especially younger generations.

“The video & presentation were engaging.

I was encouraged to see so much thought is being put into the issues of supply so far into the future, whilst also taking the environment into consideration.”

The unpredictability of expanding populations and climate change are concerns

But many up front concerns centre on what people deem more controllable aspects, such as individual behaviour and wastage in the system

Key concerns
(after seeing the video/background info)

- Water loss from leakages in the supply system and how this is dealt with – upsetting to many.
- Meeting demand with population expanding and impact of climate change.
- Wastewater flowing freely into rivers during storms (surprising and worrying).
- Victorian-built pipes are still in use.
- Potential impact of these plans on rates/bills.
- People changing their behaviour, unless they see something in it for themselves.

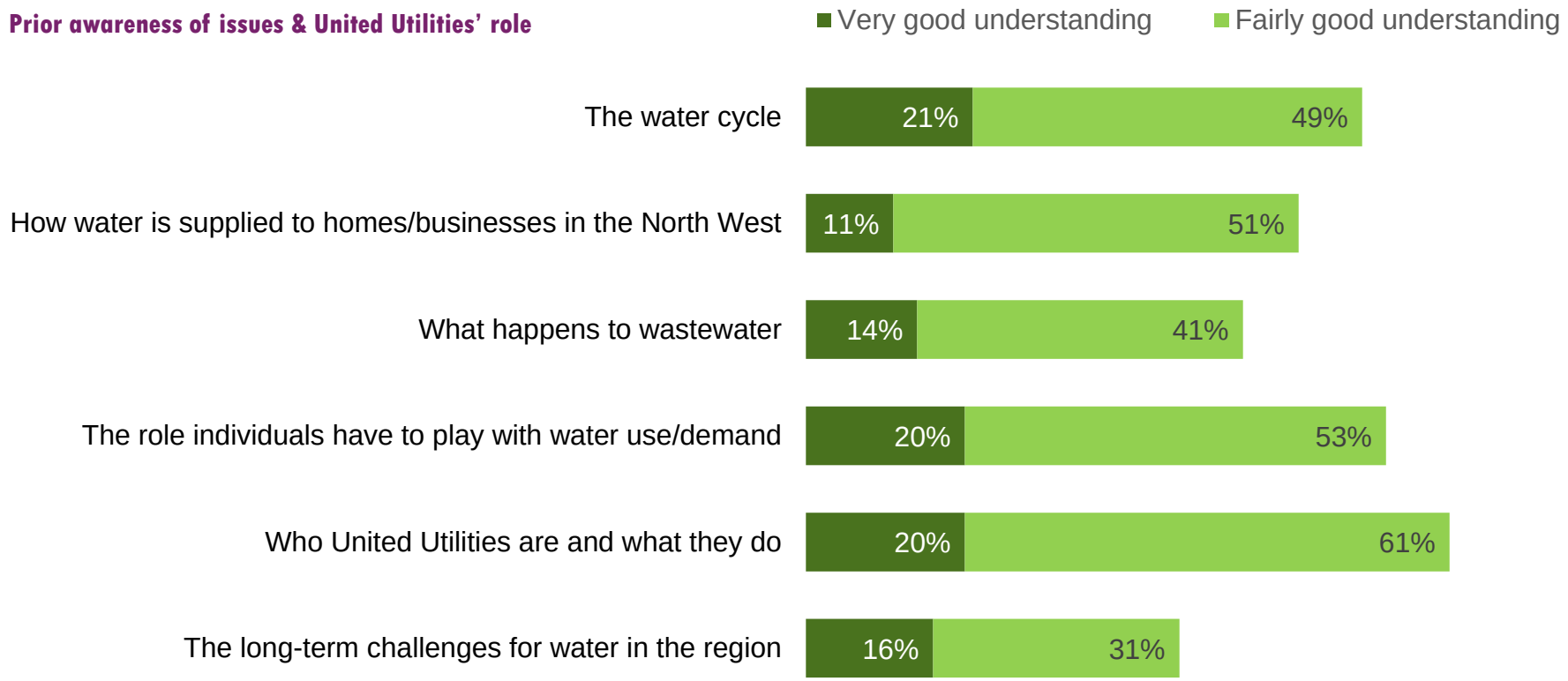
Key questions
(after seeing the video/background info)

- Will the public respond accordingly and 'do their bit'?
- Is lack of storage an issue? So much rainfall in the NW, surely shortage of natural supply cannot be a issue?
- How much will increased (and sustained) home working impact water usage?
- Is there a need for more reservoirs and/ or underground water storage?

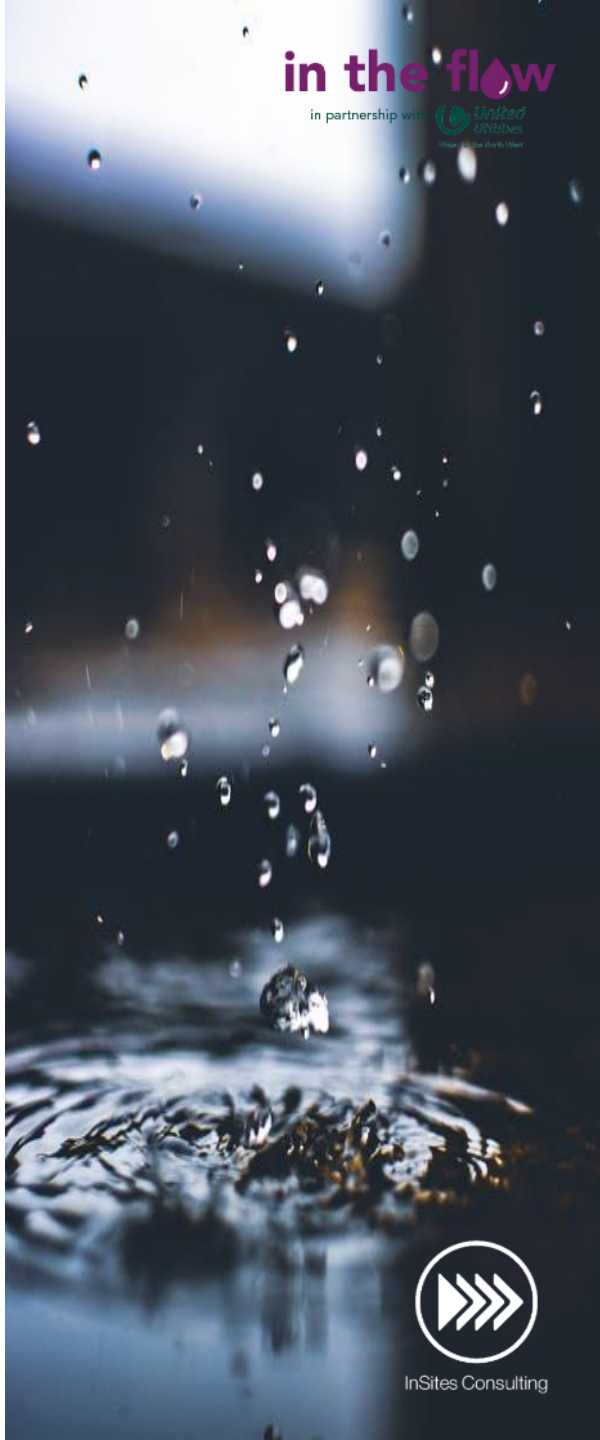
Prior to taking part in the research, most claimed to have some understanding of the water cycle, United Utilities and the role individuals can play

But most concede their understanding of Drainage & Wastewater and the long-term challenges we face is limited

Prior awareness of issues & United Utilities' role



Base: All survey participants (90)



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“With the rainfall we have it’s difficult to imagine the day water needs to be transferred from another area to the North West.”

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Water management is abstract and complex

While claimed understanding of the initiatives is high, it can be challenging for customers to confidently articulate their thoughts

ABSTRACT CONCEPTS

People find it difficult to imagine a water crisis in a rainy North West – making the notion of wholesale movement of water quite **abstract.**

Because of this, DWMP is an easier area for customers to grasp and engage with meaningfully than WRMP.

That said, people are generally more familiar with the WR side of the cycle.

COMPLEX ISSUES

Customers are aware that the issues explored are **complex.**

Many are acutely aware that every initiative has broader, systemic consequences and drivers that they may not fully grasp or be aware of.

They welcome the opportunity to share their views, but appreciate it is one part of the consultation, and seem confident that UU will make the right decisions.

It's difficult for customers to give an informed opinion on these issues - its best leaving to the experts

8%	26%	40%	27%
Strongly agree	Slightly agree	Slightly disagree	Strongly disagree

> **“Living in North Cumbria (where the weather is so very wet), you don’t realise the pressures on water supply in other parts of the region.”**

> **“I didn’t fully appreciate the carbon footprint of desalination or that brine being so harmful.**
>
> **This has put me off.**
>
> **I thought it was a way of making the most from rising sea levels, but it may not be worth the expense.”**

Disruption is a reoccurring spontaneous concern that often goes hand-in-hand with high investment, so communication is key

But most appreciate that infrastructure needs to be improved/maintained and they will benefit in the long term

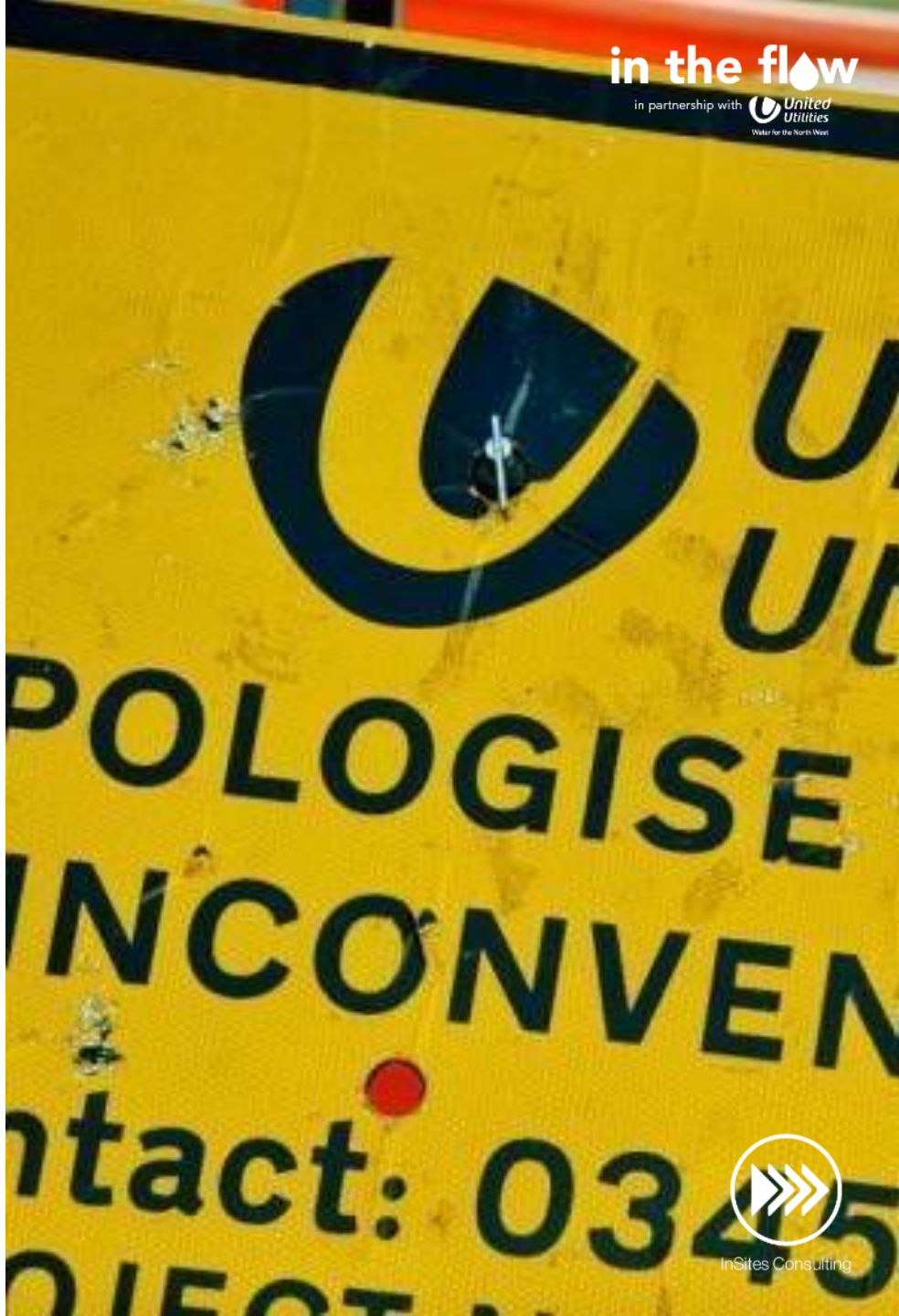
People are keen to know…

WHAT is being done

WHY

and for **HOW LONG**

"It's about biting the bullet and accepting that there will be a level of disruption, but long-term it will be worthwhile."



Ultimately, customers see the future of water management in the North West as a collective responsibility

Responsibility falls into three main groups:

United Utilities

Responsibility to maintain infrastructure and seek efficiencies.

Initiatives in line with these are often considered ‘no brainers’ – some are surprised they aren’t already in place.

Customers

Individual responsibility to consider water use and disposal.

Happy for behavioural strategies to help nudge better behaviour.

Education needs to start earlier, preferably in schools, to get people on board.

Industry

Need to play their part too.

Without their buy in, many initiatives might struggle to get off the ground.

Financial incentives or recognising standards (such as soil certificates) can help do this, providing a win-win situation for all.

Ultimately, customers believe in a **shared collective responsibility.** But recognise this is not a strong enough motivation to facilitate meaningful change. Collaboration between parties is seen as key to bring about real change.

However it’s acknowledged this comes with challenges.

Factors that come into play

Population growth, the amount of water people use, and Climate Change are seen as the biggest long-term challenges

Other issues generally aren't as visible to people or feature as much in public debate

What customers think the greatest long-term challenges are
(prompted ranking)

	Population growth	The amount of water people use	Climate change / extreme weather	Maintaining the network	Dealing with sewer blockages	Removal of wastewater	Urbanisation/ loss of green space
% ranking 1st	31%	19%	26%	12%	8%	2%	2%
% ranking in Top 3	76%	62%	53%	43%	26%	21%	19%

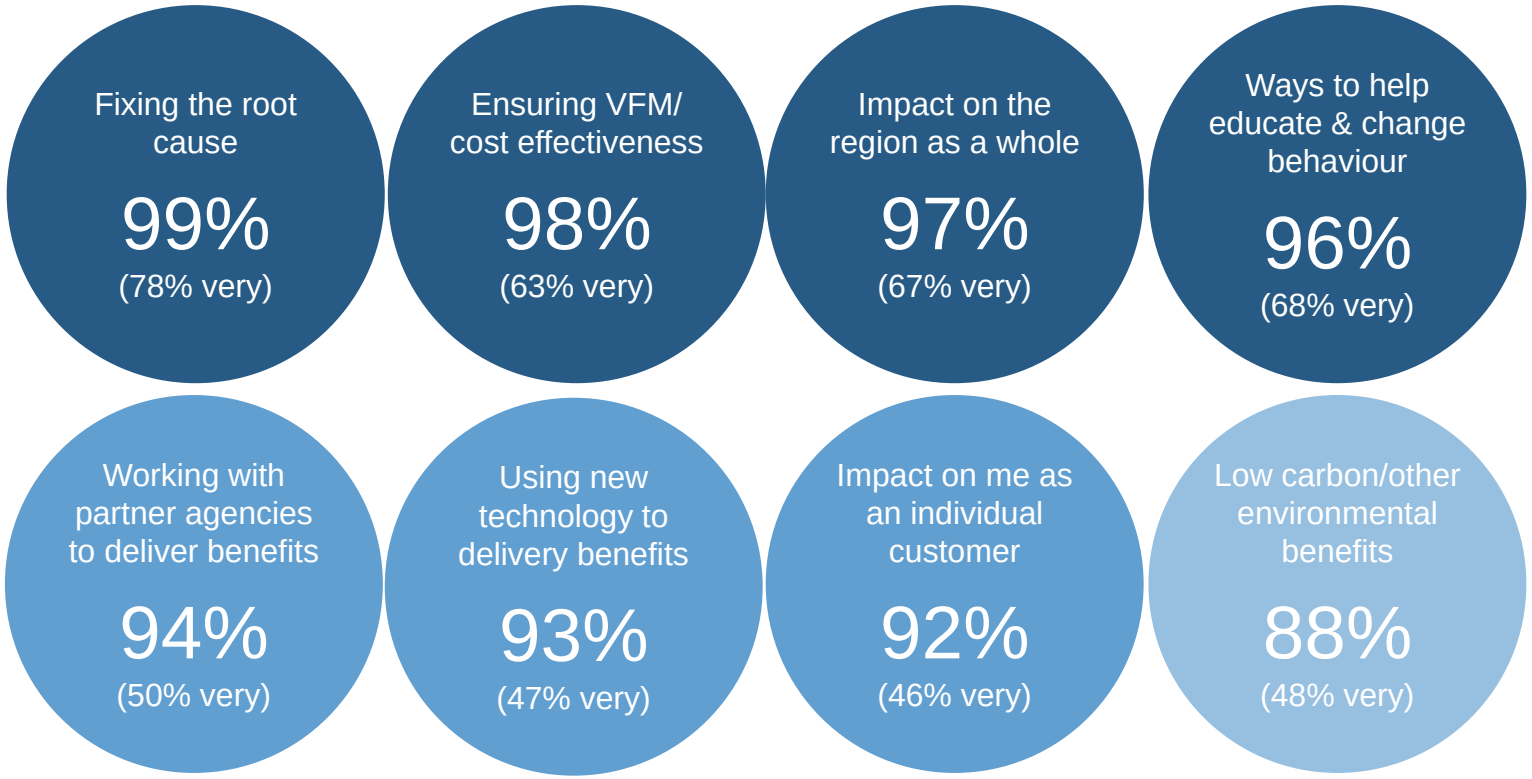
People have a tendency to focus on these more familiar aspects around water supply and consumption. Aspects such as maintaining the network and wastewater treatment are often fairly easy for people to envisage, but happen in the background. This 'out of sight, out of mind' mindset tends to make them less emotive.

Base: All survey participants (90)

People consider a variety of factors when weighing up the merits of each initiative and how much of a priority they should be

But most emphasis is on tackling the root cause, cost-effectiveness, and benefitting the region as a whole

Importance of factors when considering initiatives
(% very/fairly important)



Base: All survey participants (90)

People often find themselves led by the grading – but the criteria and rating scales make sense, and are closely aligned to what people themselves feel is important

Level it solves the issue	Level of investment required	Environmental impact	Level of Disruption	Carbon emissions impact
Considered key by customers. People often struggle with the notion of mitigating risks, preferring more decisive action. Recognise measuring the impact is complex – but UU should not discount initiatives on the basis of being hard to measure. Ultimately, UU should be forward-thinking, looking long-term, willing to trial things, and using new technology to lead the way.	Customers want money well spent. It does not mean the cheapest option always wins, but it helps if costs can be spread out over time/stakeholders (particularly private sector beneficiaries such as property developers). Cost should also not be used as an excuse for lack of investment in maintenance.	The impact on the environment is a constant concern. Customers love living in an area with lots of countryside and green space (perhaps heightened by Covid) and want this to be preserved. There's a sense throughout that people want to maintain the 'natural' water cycle and are hesitant about 'extreme' solutions (major projects that fundamentally change the sourcing and movement of water).	Disruption is a natural concern but accepted – provided it is managed properly and communicated. Many suggest combining or running infrastructure projects in parallel to reduce disruption (e.g. flood defences, transport projects and new housing developments).	Carbon emissions are less of a tangible concern for customers. This echoes wider research, and many people's limited awareness/understanding. They acknowledge the importance of meeting carbon goals so believe this should be built into initiatives and in line with government guidelines.

Overall, we see recurring themes throughout the research:

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Take the smart approach

Harness technology.

Progressive thinking & innovative approaches.

Challenges quantifying benefits = not a reason not to try something if indicators point to it being an effective solution.

Work with what we've got

Focus on existing fresh water sources.

Make the existing network as robust & efficient as possible.

By all means expand capacity.

Alternative supply a 'last resort'.

Water in the North West

Widely held belief that we have ample supply – transfers would be to benefit of other regions.

NW water is high quality – unease about initiatives that affect this, intrinsic concerns about heavily treated and reused water.

We all have a role to play

Individuals, industry, government bodies & UU – shared, collective responsibility.

Trust in people to 'do the right thing'.

Merits of big infrastructure projects difficult to assess

Sheer size/scale is difficult to comprehend.

Need a sense of volumes or where transferring water from/to.

Cost and environmental impact cause alarm.

Struggle with notion that such 'extreme' measures will be needed.

Co-ordinate infrastructure projects

House building, flood defences, rail and road networks, other utilities and water providers.

All have a duty to come together, plan and work together.

The 'message' initiatives send

'Lecturing' customers or embarking on ambitious projects while there are flaws to rectify or efficiencies to be gained in the existing network.

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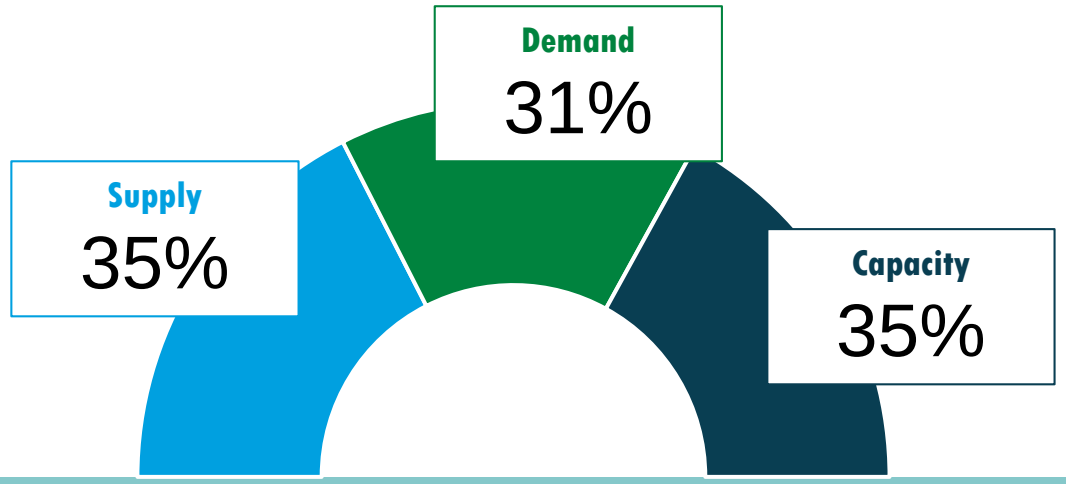
The verdict on initiatives

Of the options for managing risk, similar weight is given to all aspects

– but there's a hint that initiatives tackling Supply and Capacity are more controllable and likely to deliver more definitive results

Where customers think focus should be
(avg. share of 100 points)



"I think the 3 areas are as great as each other – it's how it can be managed in a cost effective and sustainable way for everyone involved."

"I'm unsure whether it's possible to educate everyone. My worry is people wouldn't bother doing anything themselves."

Base: All survey participants (90)

With the exception of areas concerning licences & governance, claimed understanding of the initiatives is very high

BUT, it is apparent in the more in-depth conversations that there are gaps in people's understanding of the practicalities and ramifications

How clear and easy to understand initiatives are (% saying yes)

95%+	Promoting water efficiency Educating customers to change behaviour Leakage and water losses	Increasing capacity (sewers/wastewater) Water Meters
90-94%	Transferring water in from other areas Working with other organisations to reduce demand for water and pressure on the sewer system Using technology to control sewers and monitor for problems	Increasing capacity (water treatment works) Taking water from surface waters (rivers, reservoirs) Reducing stormwater from getting into the sewer
85-89%	Reusing water Receiving alternative water supplies in drought	Fees, Tariffs and charges Transferring sewage to other areas
80-84%	Taking water from the sea Taking water from underground Managing the land to improve water quality	Seasonal adaptation of wastewater treatment Install sewer flooding protection at home
Less than 80%	Drought permits and orders (73%) License trading (55%)	

Generally, people are able to understand the premise, UU's view on pros/cons and take a steer from the grading.

Questions and knowledge gaps tend to emerge around the specifics of larger infrastructure projects, third-party involvement, and the logistics of flood defences, surface water treatment and managing the land.

Base: All survey participants (90)

While it tends to be something that happens ‘in the background’, DWMP initiatives are easier for people to grasp and engage with meaningfully than WRMP

How clear and easy to understand initiatives are (% saying yes)

95%+	Promoting water efficiency Educating customers to change behaviour Increasing capacity (sewers/wastewater)
90-94%	Working with other organisations to reduce demand for water and pressure on the sewer system Using technology to control sewers and monitor for problems Reducing stormwater from getting into the sewer
85-89%	Fees, Tariffs and charges Transferring sewage to other areas
80-84%	Managing the land to improve water quality Seasonal adaptation of wastewater treatment Install sewer flooding protection at home

Base: All survey participants (90)

People are more familiar with the WR part of the cycle and generally understand the concepts

How clear and easy to understand initiatives are (% saying yes)

95%+	Promoting water efficiency Leakage and water losses Water Meters
90-94%	Transferring water in from other areas Increasing capacity (water treatment works) Taking water from surface waters (rivers, reservoirs)
85-89%	Reusing water Receiving alternative water supplies in drought Fees, Tariffs and charges
80-84%	Taking water from the sea Taking water from underground Managing the land to improve water quality
Less than 80%	Drought permits and orders (73%) License trading (55%)

It's clear that people struggle with the more technical areas concerning licences and governance, and struggle to relate to these as much.

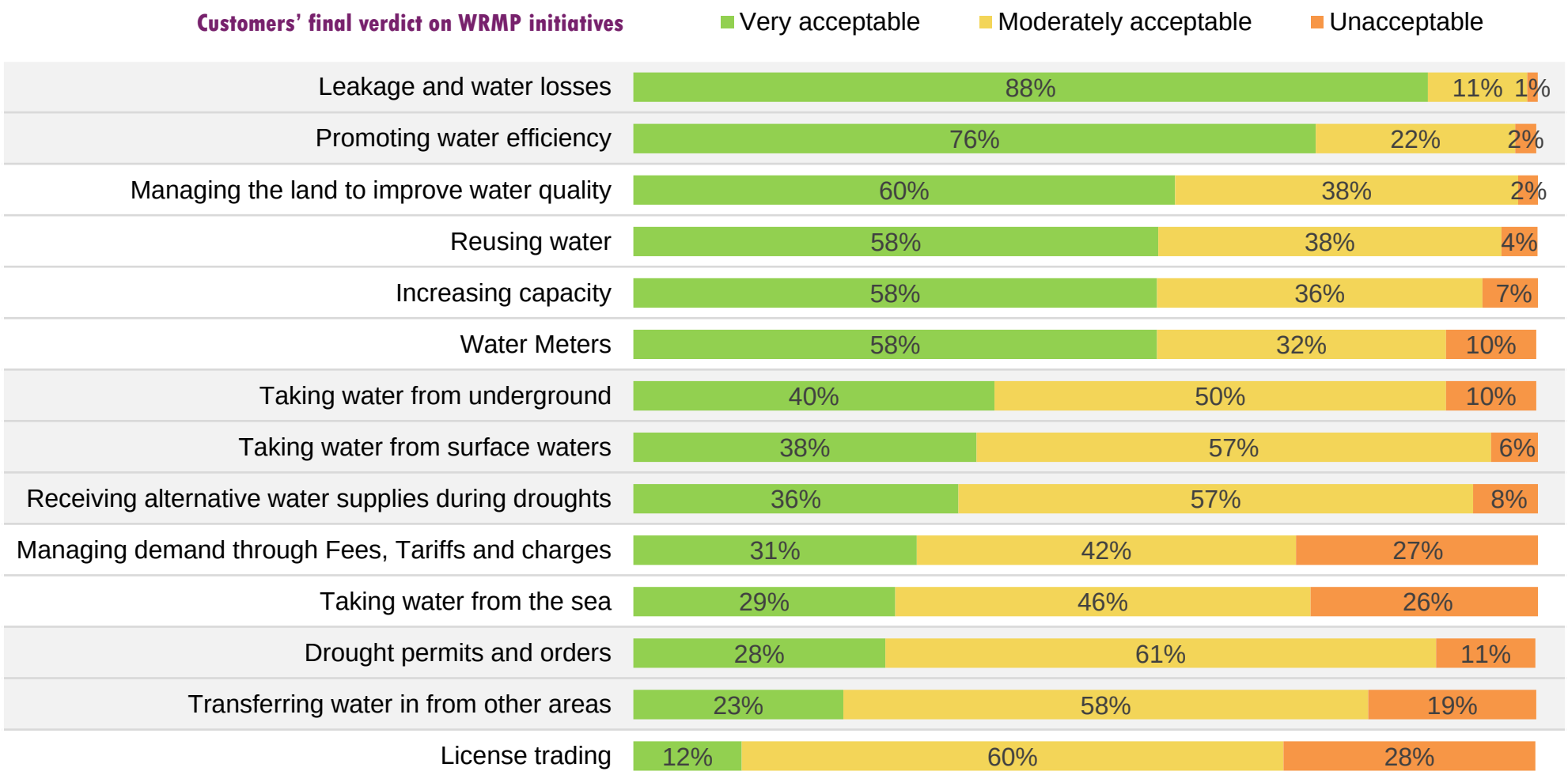
Initiatives with a 'human behaviour' aspect, such as water efficiency, reusing water and water meters, are fairly easy for people to grasp, but feel more abstract in terms of outcomes and the impact they have.

For larger infrastructure projects controlling the flow/movement of water, people understand the basic premise, but as time goes on, can struggle with the sheer scope, implementation and wider considerations/consequences.

Base: All survey participants (90)

No WRMP initiatives are rejected outright

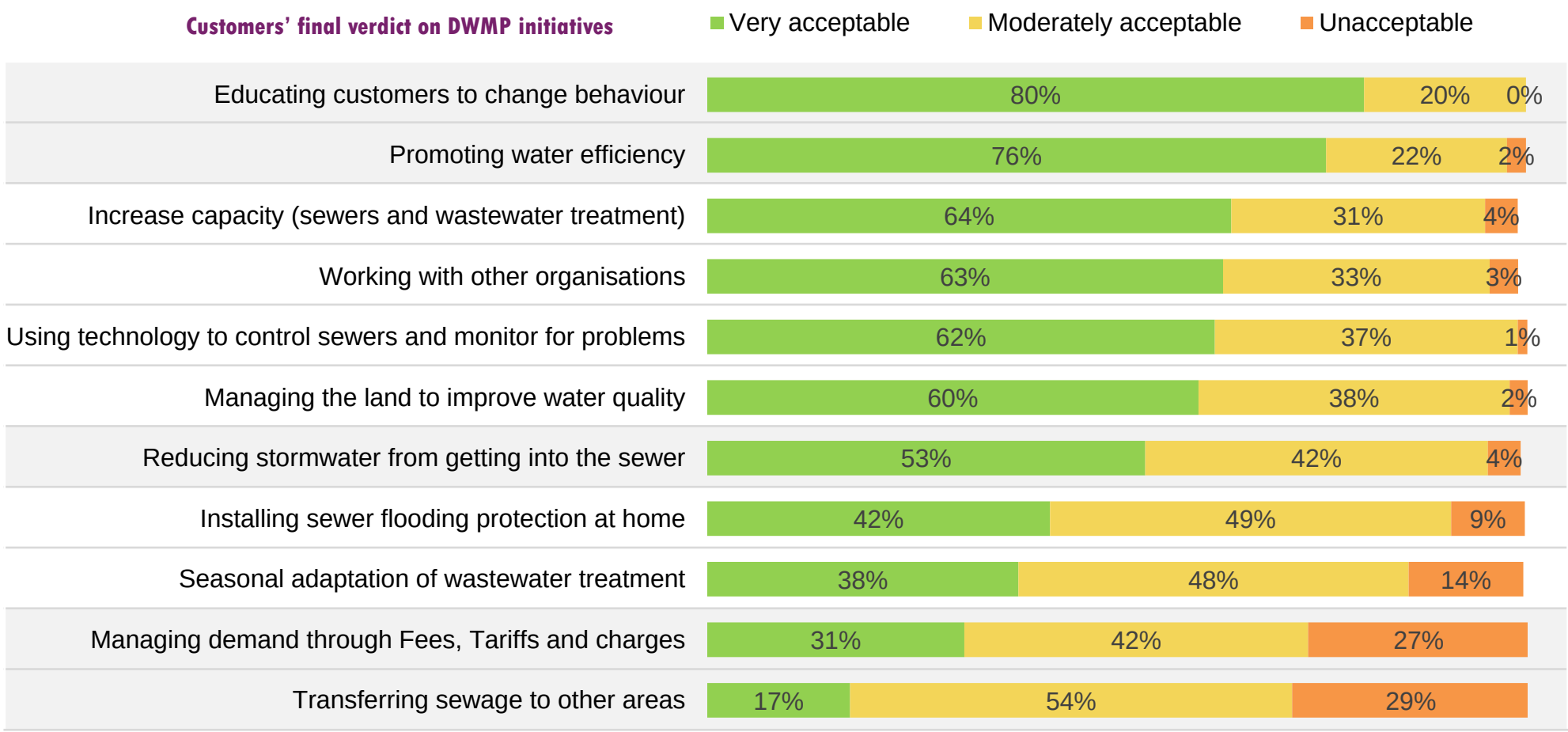
It's a 'green light' to at least consider each – but there is a lot of trepidation with more 'extreme' measures that fundamentally alter the cycle – many think they should be considered as a last resort



Base: All participants (90)

With DWMP we see strong endorsement of measures that encourage more responsible behaviour at household level

No initiatives are rejected outright, but people have reservations about the large-scale movement of wastewater around the region and the fairness of fees/charges



Base: All participants (90)

Looking at the full set, there are clear patterns centring on the responsibilities of individuals, industry and UU as a provider, before more 'extreme' infrastructure projects are considered

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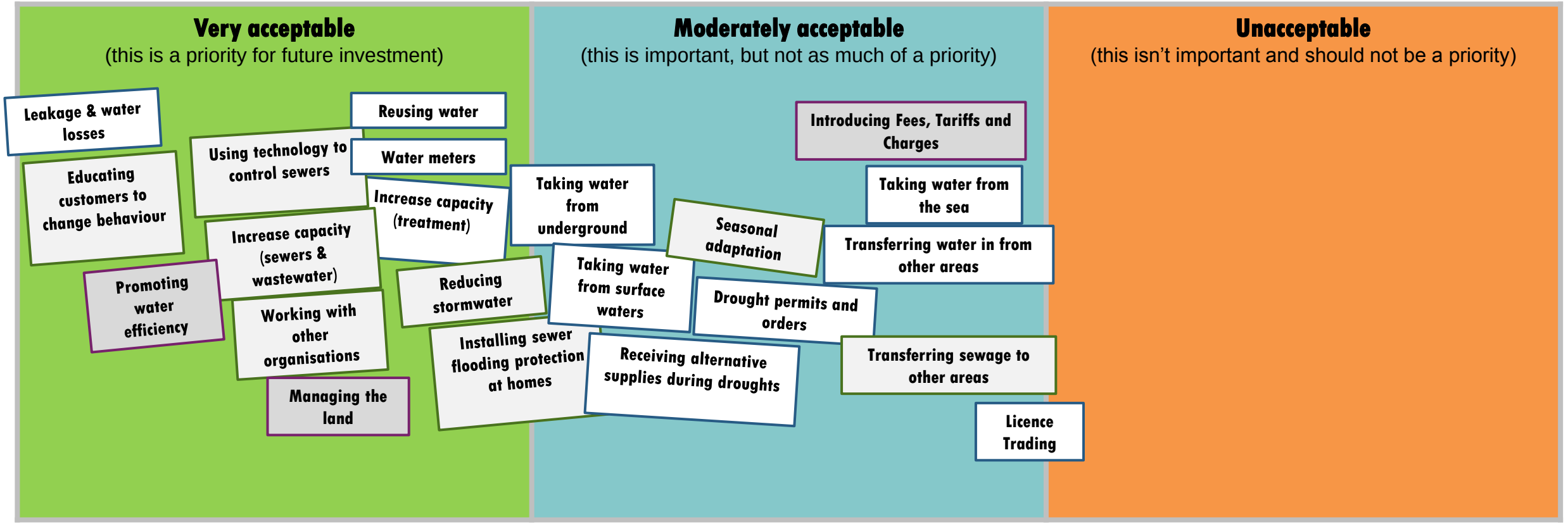
Customers' final verdict on the initiatives
(Sorting initiatives into groups*)



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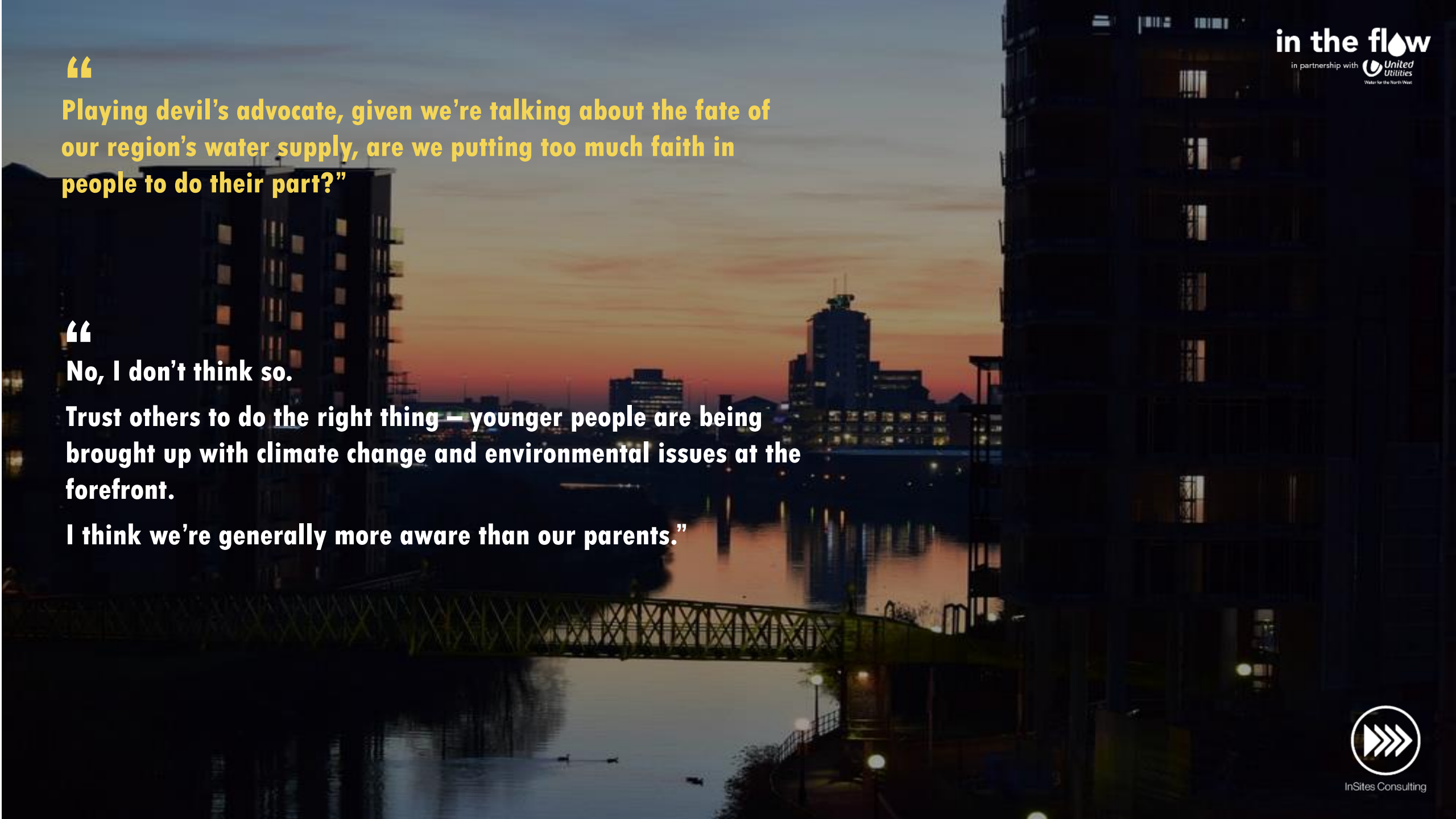
Base: All survey participants (90) *placement based on average rating (very acceptable = 10, moderately acceptable = 5.5, unacceptable = 1)



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“Playing devil’s advocate, given we’re talking about the fate of our region’s water supply, are we putting too much faith in people to do their part?”

“No, I don’t think so.

Trust others to do the right thing – younger people are being brought up with climate change and environmental issues at the forefront.

I think we’re generally more aware than our parents.”

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Overall, emphasis is on individual behaviour, UU's responsibility to minimise losses, and working with 'what we've got'

Ranked priorities (WRMP)	% RANKING 1ST	% RANKING IN TOP 3	% RANKING IN TOP 5
Promoting water efficiency	19%	61%	75%
Leakage and water losses	28%	42%	69%
Water meters	8%	56%	58%
Managing the land to improve water quality	6%	17%	53%
Reusing water	17%	33%	53%
Increasing capacity	6%	25%	47%
Fees, Tariffs and charges	3%	14%	31%
Taking water from surface waters	3%	6%	28%
Transferring water from other areas	0%	8%	25%
Taking water from the sea	3%	11%	14%
Taking water from underground	0%	6%	14%
Drought permits and orders	3%	11%	14%
License trading	6%	6%	14%
Receiving alternative water supplies in drought	0%	6%	6%

The subject of WR tends to be more emotive than DW.

People often struggle with the notion that the North West would ever have severe problems with water supply.

Many are adamant that we should look to sustain supply from existing fresh sources in the region, not try to 'over-engineer', and only consider more 'drastic' solutions as a last resort.

Some also have latent concerns about the impact on the standard of the region's water (currently seen as very good vs. other parts of the country).

Base: All ranking WRMP initiatives (46)

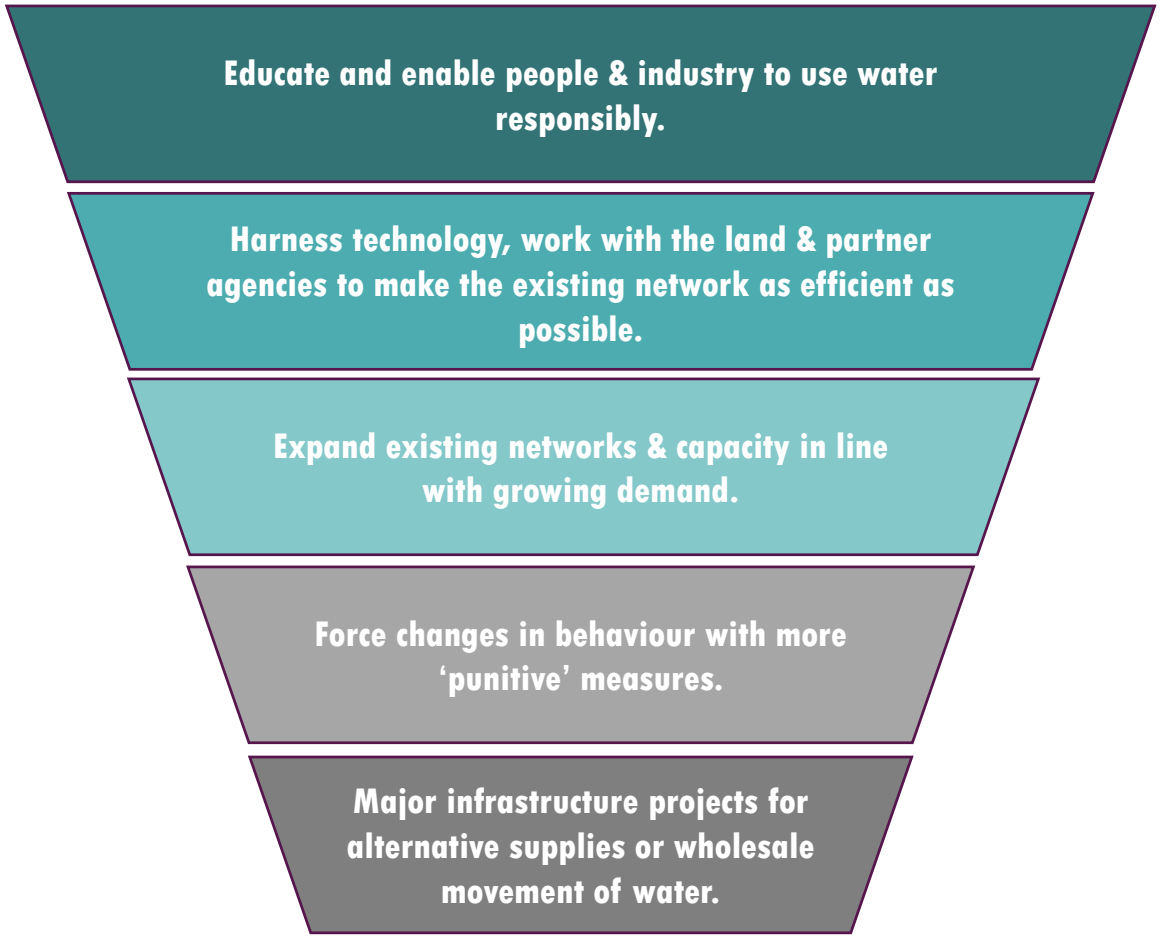
With DWMP there's a similar strong emphasis on individual responsibility, harnessing technology and partnership working

Those ranking lower tend to be parts of the network that are out of sight, are seen to be just 'moving the problem', or have aspects to them that people disagree with

Ranked priorities (DWMP)	% RANKING 1ST	% RANKING IN TOP 3	% RANKING IN TOP 5
Educating customers to change behaviour	31%	56%	74%
Using technology to control sewers/monitor for problems	5%	36%	72%
Promoting water efficiency	8%	49%	69%
Working with other organisations	8%	31%	62%
Increasing capacity (sewers and wastewater treatment)	21%	36%	54%
Managing the land to improve water quality	13%	26%	44%
Reducing stormwater from getting into the sewer	5%	10%	33%
Installing sewer flooding protection at homes	3%	21%	31%
Managing demand through Fees, Tariffs and charges	8%	23%	31%
Seasonal adaptation of wastewater treatment	0%	8%	21%
Transferring sewage to other areas	0%	5%	10%

Base: All ranking DWMP initiatives (44)

Overall, across all audiences, we see a similar pattern for people's preferences for meeting the long-term challenges



"A huge part of it for me is educating people on what's going to happen and instilling the right behaviour."

Spotlight on Business Users

There are clear signs that perspectives differ between businesses that primarily use water for domestic purposes and those where its integral to operations

Where use is largely domestic, customers can struggle to look at it dispassionately – their own personal views often creep in. Sustainability and the environment are often key priorities

Water is a relatively small overhead and they see limited impact on core operations (at this stage) – as far as long-term challenges go, they see themselves in the same boat as everyone else.

Business operations don't seem to have a strong bearing on views of individual initiatives.

Many businesses are already taking a more environmentally conscious approach to their operations and welcome any sort of progress in this area. But as it's the company footing the ball, employees aren't always as mindful of usage as they are in their own homes.

They accept that change comes with additional cost, but offset this against ensuring sustainable supplies, helping to build a better world for future generations.

Those with heavier water use have a more nuanced view, with concerns centring on ensuring their supply is protected and the cost implications involved

Many are sensitive to increasing costs; particularly where water is an integral part of manufacturing processes, site maintenance or services provided.

While there's some acceptance that commodities come at a cost that needs to be factored into operating models, they worry about ideas that penalise heavy water usage. Incentives, fees and tariffs need to be proportionate and mindful of this.

That said, even heavier users have a fairly 'matter of fact view' towards water, driven by a sense they have to use it anyway and water bills are considered fairly low as overheads, so easier to absorb slight increases.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We use so many utilities – there’s phone & internet services, electricity, water…
It's one of the things that you never really think about.
In the grand scheme of it, the bills never seem that high.”
Retail business owner
InSites Consulting

Business users are generally open to initiatives that will guarantee supplies – and accept use may need to be managed through tariffs

In final ratings, Business users over-index on the following for rating as 'very acceptable':

- Receiving alternative water supplies during droughts
- Taking water from the sea
- Taking water from underground

SUPPLY

- Increasing capacity (water treatment works)
- Leakage and water losses
- Working with other organisations
- Seasonal adaptation
- Installing sewer flooding protection
- Educating customers
- Fees, Tariffs and charges
- Water Meters

> **"We know we need to use it. I'm not saying It's right, but we are not in any shape or form monitoring what we use at the moment.**
>
> **There will always be costs, somebody has to pay for it"**
>
> Operations Manager, Manufacturing

Business owners are looking for reassurance and support from United Utilities in three key areas

Education

Convey why there's a need to take action; why they need to be mindful of how they use water and how this can affect the water supply and quality in future.

Further context around how the process of obtaining, storing and cleaning water could help bring this to life.

Impact

Address how the initiatives will affect individual businesses and sectors in the long-term, both in terms of supply and bottom lines.

Implementation

Work with businesses to come up with relevant and tailored solutions to facilitate this – the brand has a strong reputation in the area, despite utilities being a fairly low engagement category.

There's an openness to a two-way dialogue and consultations to help put a plan in place that benefits all parties.

> **"We've just started an environmental impact committee in the office looking at ways we can make our company more environmentally friendly."**

E-commerce business with office and warehouse sites

> **"We need more awareness of what the effects are and, if we change our behaviour, if our bills are going to be cheaper – ultimately that's what we want."**

Operations Manager, Manufacturing

“United Utilities should be leading by example.

In my eyes, it should be saying ‘this is what we're doing, this is what you can do.’

‘Are you reusing water? Are you making sure you're reducing leakage and water losses?’

You know, things like that to help tie everything together.”

Events & Exhibitions company

Spotlight on Future Bill Payers

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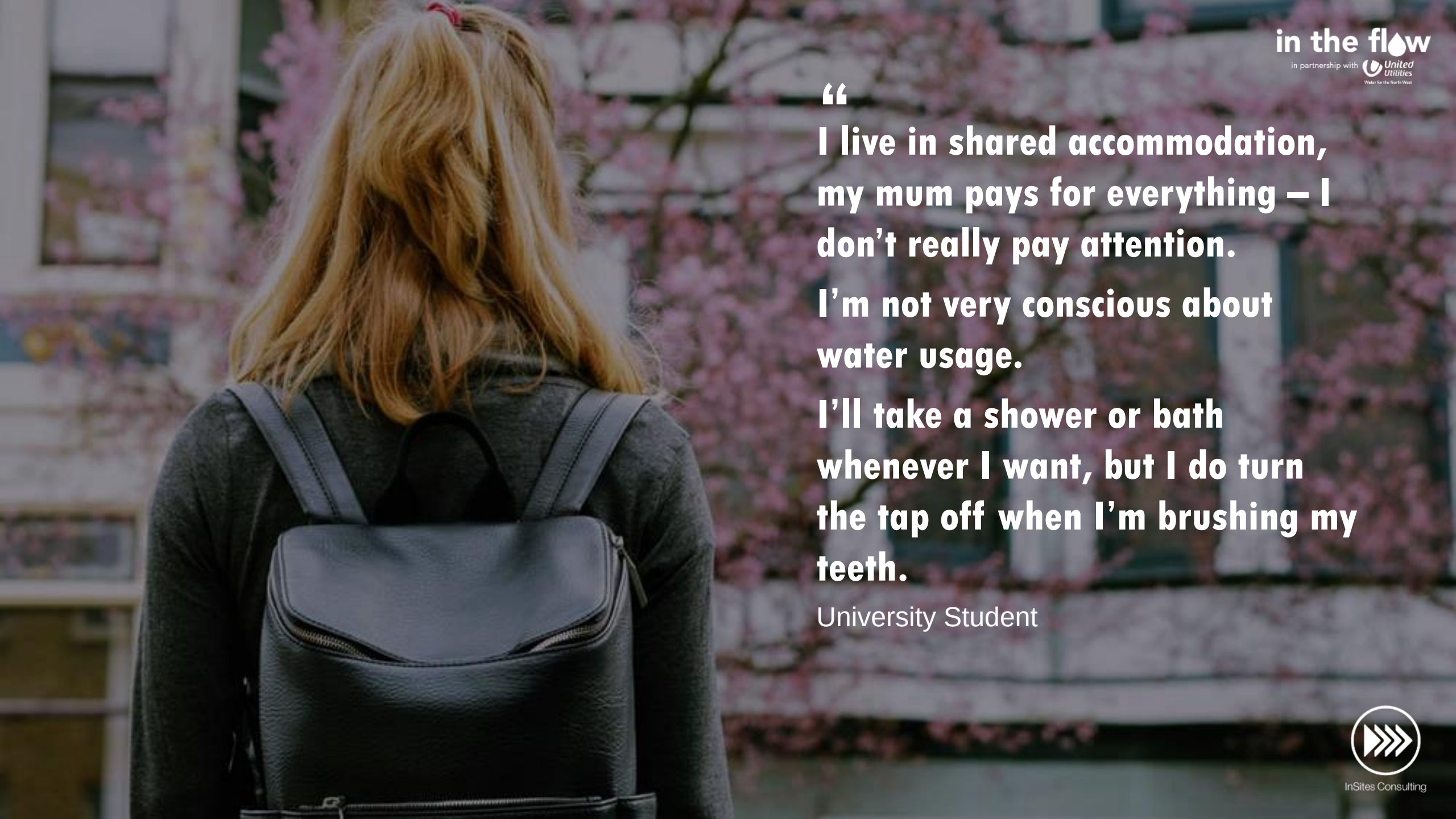
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I live in shared accommodation, my mum pays for everything – I don’t really pay attention.
I’m not very conscious about water usage.
I’ll take a shower or bath whenever I want, but I do turn the tap off when I’m brushing my teeth.
University Student
InSites Consulting

Current knowledge is limited. The environment and the future are important, but hard to envisage

Knowledge about water, the system, and bills is very low

And this includes knowledge about United Utilities – only those who have lived in other parts of the country are aware of the regional setup, and they have no real opinion on the company.

Water isn't something they tend to think about; their parents/landlord pay their bills.

They feel education is vital; it'll act as a good starting point for when they do need to know/think about it when they are a bill payer. And it shows that UU is actively contributing, rather than just relying on customers.

The Environment is important

Agree that climate change is a 'big thing', and it's important to take action now to avoid major issues that impact everyday life later down the line.

This group tend to be 'environmentally aware' – they've grown up with environmental issues at the forefront, and feel they're generally more conscious and willing to adapt than older generations.

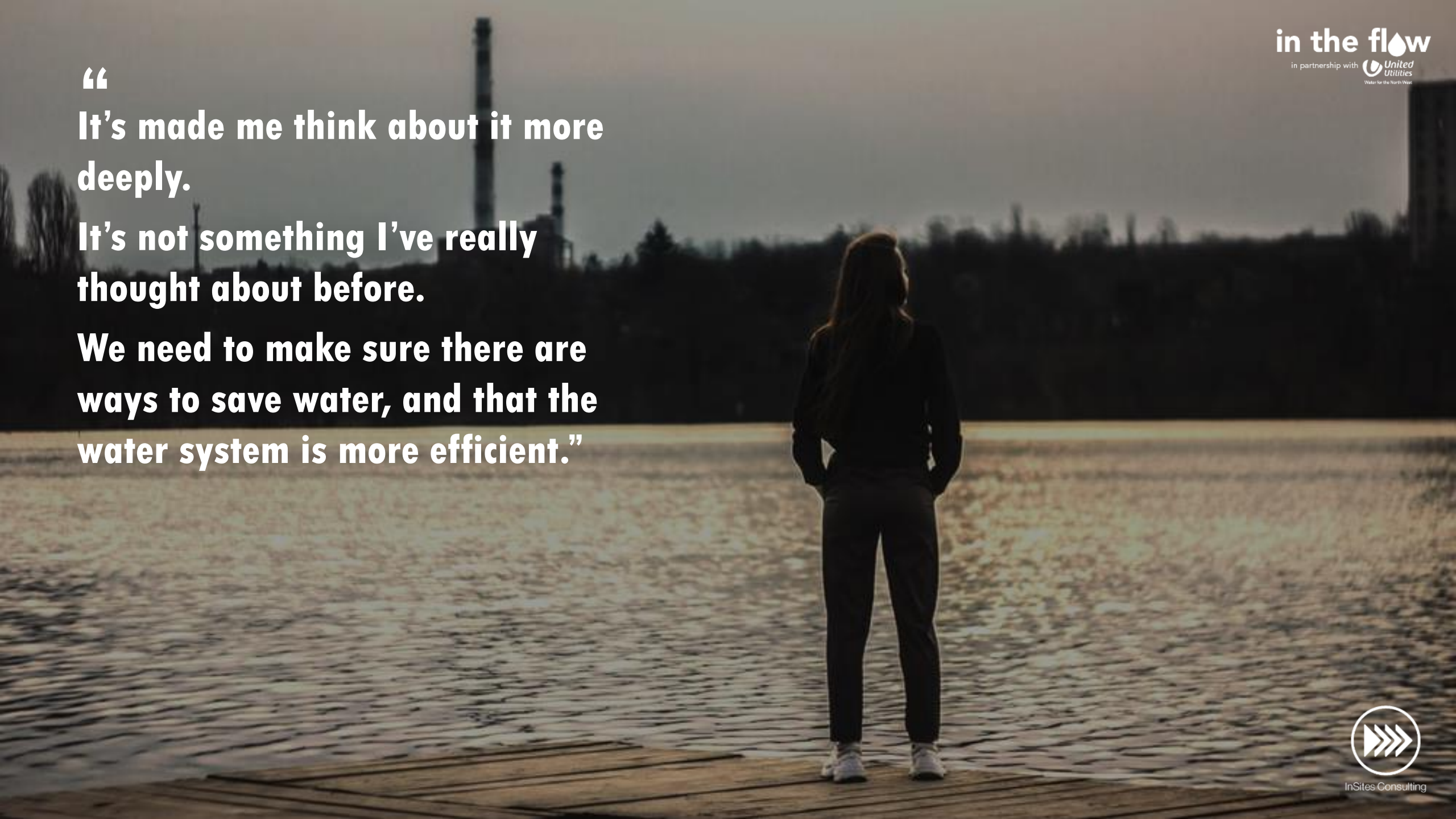
But they concede that this doesn't always translate into behaviour – particularly those still living with parents.

They find it hard to think about the problems we might be facing in the next 25 years

It's a long timeframe to be thinking about.

United Utilities could help people to understand by breaking it down.

Perhaps use shock stats: 'This is what we could be facing in 10 years time'.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Water for the North West
“
It’s made me think about it more deeply.
It’s not something I’ve really thought about before.
We need to make sure there are ways to save water, and that the water system is more efficient.”
InSites Consulting

Future Bill Payers' views on the initiatives

They didn't realise the extent of disruption that these initiatives could cause

As well as the cost. It seems a lot, so they question whether it is worth it.

Educating people specifically on *why* these initiatives are needed, and why they are important, will be crucial.

They are often drawn to initiatives which have no (or little) impact in terms of disruption.

That said, while such initiatives are ranked lower, they do seem more open than their older counterparts to larger 'future-proofing' initiatives, namely: 'Taking water from the sea', 'Transferring water in', Transferring sewage to other areas', and 'Reusing water'.

They have a better understanding of the DWMP initiatives

These initiatives are clearer, feel more tangible and generally 'make sense'.

They also find these options a lot more acceptable on the whole compared to WRMP options – particularly those looking at alternative sources with a big environmental impact.

Choosing preferences comes down to determining level of disruption, impact on customers, the environment, and cost

Impact on customers

There's a sense that, at the end of the day, people are 'selfish' and will care more about their own water use rather than the region/UK as a whole.

If the initiatives are going to significantly impact bills, or penalise water usage, people aren't going to be happy.

Even at their age, awareness of varying levels of water quality and taste across the country is quite high. They don't want the quality of the water to be impacted (currently seen as being good in this region vs. other parts of the country, notably the South).

Cost to both United Utilities, and the customer

They're aware that high cost can have an impact on customers. If bills go up, it will cost landlords more, so rent might increase.

Disruption

Appreciate that disruption can be a huge influencing factor. It might not directly impact them (particularly living in urban areas), but it could happen near to where they choose to live, or they'd have sympathy for others who are directly impacted.

And if the initiative negatively impacts on the environment, then they question why it is even being considered as an option when we should be doing everything we can to help the environment.

Spotlight on Vulnerable Customers

There aren't many instances where we see clear differences in the views of vulnerable customers compared with the wider general population

While they have their own specific circumstances to deal with and some are sensitive to higher bills, the feelings they project about the issues and impact of initiatives are often more about the wider community/society than themselves.

Vulnerable customers' final ratings are largely in line with the wider public – they just over-index (i.e. **more likely** to rate as 'very acceptable) on 'Leakage and water losses', 'Water meters' and 'Increasing capacity'.

Their main take-outs from the research are…

Society in general needs to take more responsibility; collective responsibility extends to business/industry too.

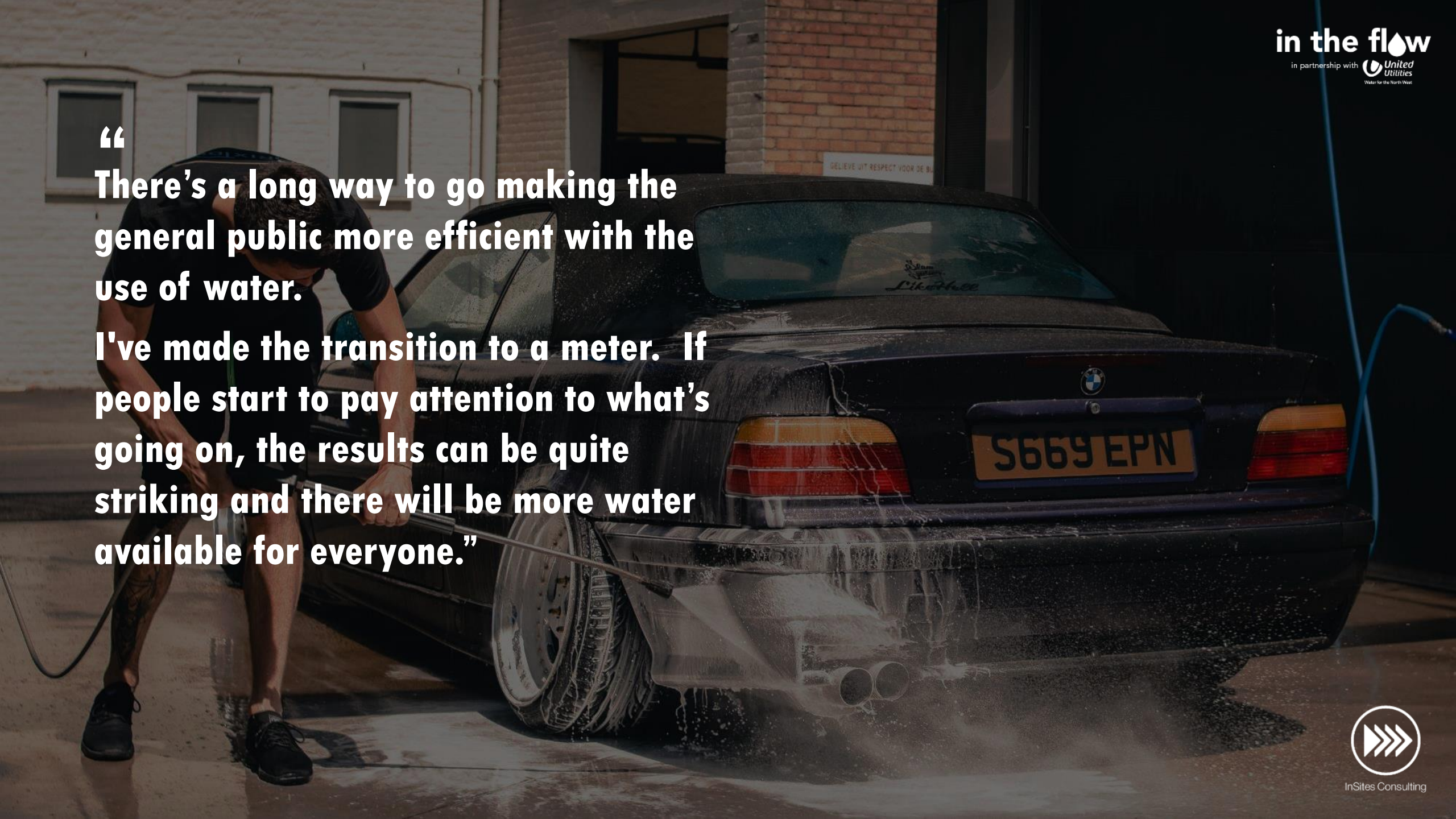
We should be moving towards living more harmoniously with nature; resulting in cleaner water and more sustainable resources – they're generally less in favour of initiatives that impact rivers, lakes, reservoirs and the surrounding areas.

Ultimately, by being more conscious of our water usage, the impact on our water bills should be minimised.

Feeling that…

Education is imperative so households and business alike understand and change how they use water.

UU should be doing all they can to improve and build out capacity in the existing systems e.g. improving leaks and efficiency before considering new infrastructure.



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“There’s a long way to go making the general public more efficient with the use of water.

I've made the transition to a meter. If people start to pay attention to what’s going on, the results can be quite striking and there will be more water available for everyone.”

InSites Consulting

Their key concerns centre on the cost of change – but for all, not just themselves

Concerns they have…

That increases in costs are proportionate and fair, based on an individual's usage (many vulnerable customers are single-person households who feel they use less water than the 'average' family).

Where costs do need to be passed on, there's a hope that they'll be spread out over time so individual customers aren't hit too hard in the short term.

> **"I think they need to talk to big companies – people building massive housing developments should be addressed before they start building so they do things efficiently for the future."**

> **"When we got our meter we were given an initial bill of £39 a month, and I thought, 'wow, that's a lot of money'.**
>
> **So we decided to be careful with our usage, that really made us think about it and how much water we were using."**

Views on individual DWMP initiatives

“
I think education is sensible.

If you go to Greece, a lot of the hotels there tell you not to flush anything other than the 3 ps, it's not difficult.”

Should be prioritised from a young age, even if the impact of behavior change is hard to guarantee

Initial reaction

- A sensible approach that has people's backing – should be doing already.
- People strongly feel there is a need for society to be better informed on water, education should start in schools.
- Some concern around cost (particularly heavy media spend) – higher bills to fund campaigns/programmes slightly resented by those already 'doing their bit'.

As knowledge builds…

- Education can and should take many forms, from schools to public spaces – all should be explored and utilised.
- Recognise challenges with entrenched behaviours, 'someone else's problem' mentality, and people unwilling to change making it's impact hard to guarantee. But younger customers firmly believe their generation can lead the way.
- Businesses also play a role here – rules around labelling products flushable etc. when not.

Ranked

1st

out of 11 DWMP initiatives

Key driving factors

- Education & changing behaviours
- Low costs
- Future-focused

Top emojis

associated with this initiative

The final verdict

Should be a priority for ongoing investment – challenges in changing behaviour and messages 'cutting through', but can focus on future generations and tap into wider momentum around environmental awareness.

"Education is a great and fairly cheap way of saving water or helping reduce sewer blockages.

The only drawback is that some people don't want to be educated."

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Question marks about its impact vs. larger infrastructure projects, but a 'no brainer' if the cost-benefit trade-off is to be believed

Initial reaction

- 'Nice' ideas – helping enable individuals to 'do their part' with the added incentive of saving money.
- But possibly more fundamental things to tackle first – like fix leaks and replace old pipes?
- Some surprise that this isn't already happening, leading to questions about awareness and how widely/effectively they're been promoted.
- Some query who/how its funded.
- Some strong advocates of water butts – crucial for dry periods.

As knowledge builds…

- Just 'Yes'! Almost incredulous that this is even be discussed – should be being done already.
- Not necessarily a standalone initiative, ties in with education, etc. and potentially Fees/Tariffs.
- While water saving devices may have associated costs, all other initiatives do too – feels like low-level investment.
- Being informed that the impact on drainage/wastewater is relatively low doesn't really change views – seen as 'all part of the same system', encouraging the right behaviours and beneficial for reducing water use and amount of wastewater.

Ranked

2nd

out of 11 DWMP initiatives

Key driving factors

- Impact on individual customers & region
- Education & changing behaviours
- Low costs

Top emojis

associated with this initiative

The final verdict

Some scepticism about its impact in the grand scheme, but a logical approach to take to raise awareness and nudge behaviour.

"I like it, although not everyone would listen.

The freebies sound good though."

InSites Consulting

in the flow
in partnership with United Utilities

A proactive solution that, despite initial investment, would pay off in the long-run

Initial reaction

- An exciting, innovative, clever and well liked plan – a proactive rather than reactive solution.
- Focuses on one of the big issues of wasted resources from leaks (costing water and money on a large scale).
- Long-term, future-focused solution.

As knowledge builds…

- Harnessing technology is an appealing strategy.
- Appreciate the initial investment may be high.
- But feels like an essential investment that would pay off in the long-run, helping to rectify current issues and prevent future ones, in an efficient manner.
- Able to easily imagine how this could start in problem areas, then be rolled out systematically.

Ranked

3rd

out of 11 DWMP initiatives

Key driving factors

- High cost, but long-term pay-off
- Future-focused

Top emojis

associated with this initiative

The final verdict

A popular solution, that would reap the benefits for years to come, and far outweighs investment cost.

> "I think this is a brilliant idea as the company can monitor the waste networks before disasters happen! This would allow an almost instant response to what is going on beneath the surface and give the intel needed to better maintain the systems."

InSites Consulting

Working with other organisations

in the flow
in partnership with United Utilities
Water for the North West

“I love the idea of partnership working and think everyone should play their role.

Sorting problems at their source is ideal.

It shares the cost and the burden, and also helps educate.

Its highly likely the other partners are UU customers and reside in the areas affected so they should want to get on board.”

InSites Consulting

in the flow
in partnership with United Utilities

Collaborating, though not without its challenges, provides mutual benefits. Feels like a good first step before other initiatives

Initial reaction

- Has many benefits - potential to share costs and achieve more in a shorter time frame, sharing of information & knowledge creates a better foundation for solid decision-making.
- A good long-term strategy that could help numerous different problems.
- But success will depend on all shareholders engaging fully, and there could be potential issues over ownership etc.

As knowledge builds…

- There are challenges associated with collaboration, but ultimately, it feels better to work together than not. Identifying mutual benefits and options to share costs is always welcomed.
- High appeal in the fact that this potentially addresses underlying issues at the root of the problem.
- Reusing water not only sounds sensible, but appeals to the current discourse around sustainability.
- Quickly triggers ideas around how customers themselves could reuse water.

Ranked

4th

out of 11 DWMP initiatives

Key driving factors

- Collective responsibility
- Fixing the root cause
- Environmental benefits
- Future-focused

Top emojis

associated with this initiative

The final verdict

A future-focused strategy that could be used to tackle a host of issues. Should be used as a first step before other initiatives.

"Collaboration where possible is always a good idea to achieve a more joined up approach, share costs, and get things right in the first place. Can't think of any downsides with this, as long as the other parties are willing to go along."

InSites Consulting

in the flow
in partnership with United Utilities

Seen as inevitable as population grows, but high costs make other more immediate solutions more appealing

Initial reaction

- Upgrades necessary with population growth – accepted as a long term strategy for water management.
- Knock on cost to consumers accepted as a necessary evil, but running out of capacity is considered ‘dangerous’ – and cost per-capita should decrease with that growth.
- But we still need to be more careful with our general water usage – and shouldn’t be used as an excuse to deprioritise educational initiatives.

As knowledge builds…

- Views stay the same – its clear that the basic infrastructure needs expanding/updating.
- People question timelines and when work needs to happen, weighing up against other initiatives that reap immediate benefits at lower costs with less disruption.
- Hope that costs would be largely borne by government and housing developers rather than the general public.

Ranked

5th

out of 11 DWMP initiatives

Key driving factors

- High cost
- High disruption
- Impact on individual customer

Top emojis

associated with this initiative

The final verdict

Necessary in the long-term, important to plan for early.

“Updating the sewers and wastewater stood out to me. Modernising these would bring many advantages environmentally and give us cleaner healthier water. My concern is cost and time to deliver something like this.”

InSites Consulting

“We need to start using multi-organisational approaches a lot more to address issues to do with climate and resource usage moving forward.

They are never easy to get off of the ground, but the sooner we attempt to do so the better.

After all, we can all learn from each other.”

in the flow
in partnership with United Utilities

Clear benefits to both water management and the environment – but only possible with buy-in from stakeholders

Initial reaction

- Idea of collaboration for the greater good feels sensible and necessary.
- An obvious solution (at least partially) to challenges faced.
- Dependent on buy-in from all stakeholders for success – resistance/reluctance to comply could limit its impact/benefits.
- Some enforcement might be required (and might not be popular).

As knowledge builds…

- Working together seems sensible and necessary when faced with such severe potential consequences.
- Clear benefits from water management, environmental and personal perspectives (cleaner food, less chemicals).
- A positive approach to take – potential for high benefits at comparably low cost.
    - Suggestions on how to engage stakeholders e.g. technology sensors to track and monitor water quality, accreditations such as soil stars or other behavioural nudges.
- Main drawback is all parties need to opt in to the same level to ensure success – risk of differing agendas and priorities.

Ranked

6th

out of 11 DWMP initiatives

Key driving factors

- Impact on individual customers
- Collaboration
- Environmental benefits

Top emojis

associated with this initiative

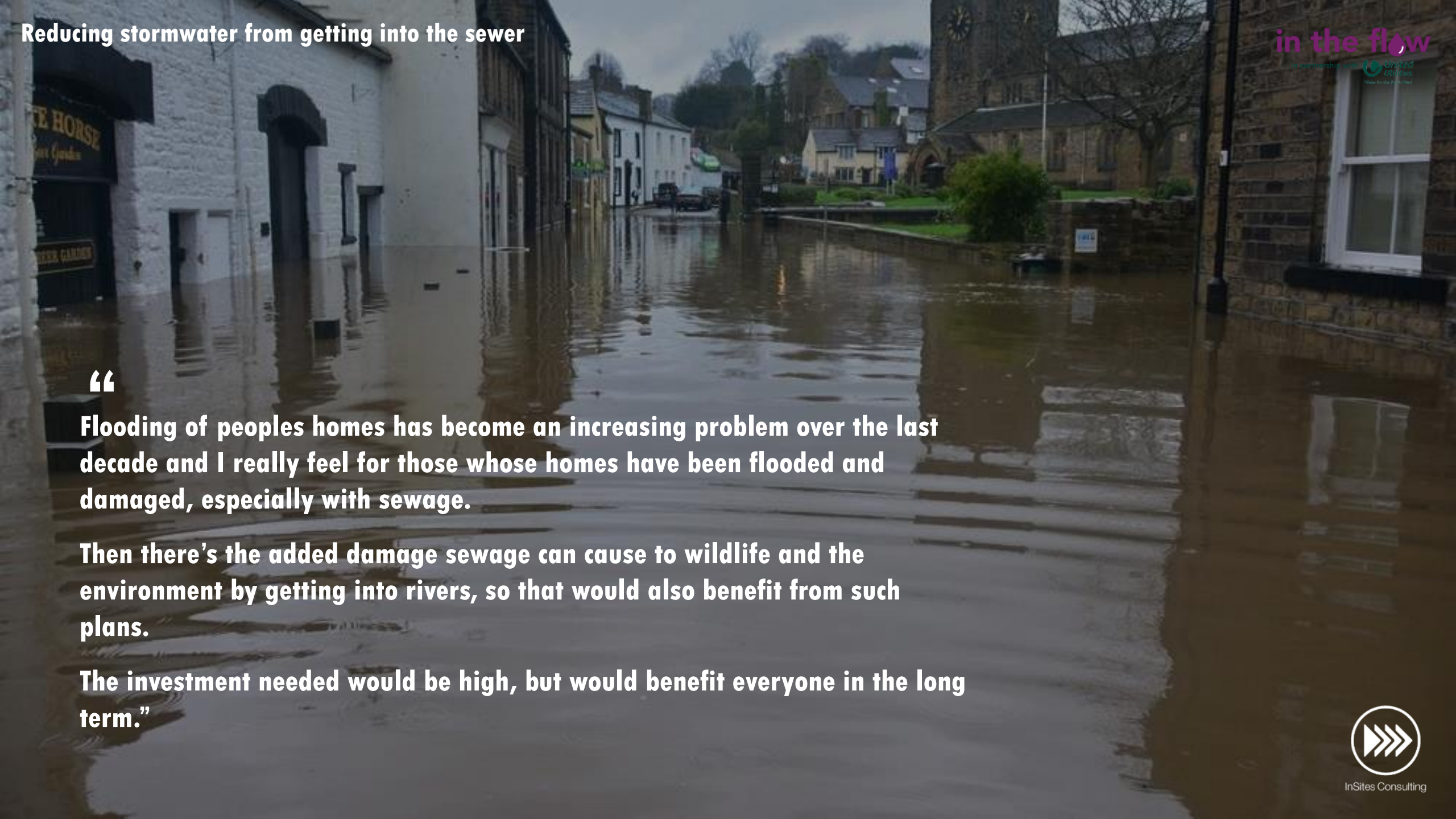
The final verdict

Proposed benefits outweigh concerns over lack of measurement (shouldn't be a reason not to prioritise).

> "Sounds a good idea provided that farmers can be persuaded (financial incentives perhaps). Can use of chemicals be reduced as well?"

InSites Consulting

Reducing stormwater from getting into the sewer



“Flooding of peoples homes has become an increasing problem over the last decade and I really feel for those whose homes have been flooded and damaged, especially with sewage.

Then there’s the added damage sewage can cause to wildlife and the environment by getting into rivers, so that would also benefit from such plans.

The investment needed would be high, but would benefit everyone in the long term.”

in the flow

InSites Consulting

in the flow
in partnership with United Utilities

A progressive, necessary solution to a problem, with valuable environmental benefits

Initial reaction

- Helping to prevent sewage flooding is seen as a necessity, and an environmentally friendly way to do this is always going to be a bonus.
- Could also help to reduce related damage to the rivers and wildlife from sewage flooding.

As knowledge builds…

- Clear backing for innovative solutions; feels progressive, and a cost effective way to identify and manage the problem.
- Tackles the root cause rather than short-term fixes.
- Managing the problem in an environmentally friendly way feels sustainable and future-focused; positive environmental impact at local level.
- Easy to relate to the underlying issue; people notice surface water on roads, driveways, water butts – easy to extrapolate the magnitude of the problem.
- Some questions about the implementation in more built up areas, with little available space for new green spaces.

Ranked

7th

out of 11 DWMP initiatives

Key driving factors

- Fixing the root cause
- Environmental benefit
- Benefit to individuals & the region
- Cost-benefit trade-off

Top emojis

associated with this initiative

The final verdict

A very promising solution to a crucial problem in the region, which outweighs concerns over lack of measurement (shouldn't be a reason not to prioritise).

"This is a brilliant idea, which would be a great solution. The pros would be great for the environment and presumably at minimal cost compared to other solutions."

InSites Consulting

in the flow
in partnership with United Utilities

Cost vs. benefit is questioned, as only a small sample of customers would benefit. But on the other hand, UU do have a duty of care

Initial reaction

- A good idea, and really not something that should be up for debate; it's not acceptable for homes to be flooded.
- But its limited scope/benefit limits appeal as something that can help tackle long-term region-wide challenges.
- A reactive exercise, rather than solving the cause of the problems.

As knowledge builds…

- Views stay the same, with two primary perspectives:
  - UU has a duty of care to customers who experience repeated flooding; *something* needs to be done, and UU could (and should) take responsibility for the damage caused.
  - Shifts the problem from one area to another, rather than solving the issue; the same amount of waste-water exists that still needs to be taken away – what knock on effect would this have?

Ranked

8th

out of 11 DWMP initiatives

Key driving factors

- Impact on individual customers
- Not fixing the root cause

Top emojis

associated with this initiative

The final verdict

Whilst important to many customers, it won't directly benefit all, so difficult to translate and understand if the cost outweighs the benefit.

"This sounds like a good idea and would be very beneficial to people who are at risk of sewage flooding.

Cons are could be expensive for the amount of people who need it, cost could outweigh benefits?"

InSites Consulting

“What about people who work nights?

They might not have a choice of when to shower or do their washing.

Tariffs would unfairly target them and they are often on the lowest wages.”

in the flow
in partnership with United Utilities

Worth considering, but not a popular move

Must be administered fairly and cautiously to avoid any backlash or discrimination

Initial reaction

- A system which allows people to be rewarded for being conscious and careful about their water usage and bills appeals.
- However, UU would need to play a bigger part in fixing customers leaks like other utility companies.
- Concerns that it could be hard to administer/police and might unfairly penalise certain lifestyles or income/social groups.

As knowledge builds…

- Generally met with scepticsm but not outright rejection – although future bill payers are strongly against.
- Some unease about 'carrot & stick' approaches, but recognise education alone might not change behaviour.
- Should only be considered in combination with broader behaviour change/educational initiatives.
- Ideas might help/make people think more carefully about their water usage and potential wastage, and reward those who are careful and conscious about usage.
- But fairness/social responsibility, and possibility of 'water poverty' remains a concern, with no real reference to this.
- Some have no issue with this approach for businesses – and people are positive about the idea of incentives for property developers – but would prefer not imposed on the general public.

Ranked

9th

out of 11 DWMP initiatives

Key driving factors

- Impact on individual customers
- Education & changing behaviours

Top emojis

associated with this initiative

The final verdict

Levers that could be used alongside other initiatives, could increase 'tension' between customers and UU, and heighten expectations around leakage/water losses.

"I think we need to be really careful when we think about what is peak and what is off peak and how fair it is. This is like a punishment for people who use water at certain times of day."

InSites Consulting

in the flow
in partnership with United Utilities

Reacting to seasons makes so much sense – why is this not being done already?

Initial reaction

- Makes logical sense to work with the seasons in order to improve efficiency.
- Maximises efficiency of treatment resources.
- Some confusion around how it works and, if so simple, cheap and effective, why is it not being done already?
- A minority disagree and feel the rivers/lakes need all the help they can get, even when they are healthy.

As knowledge builds…

- Support for UU to be innovative and experimental in their solutions; it's ok to take risks and learn from them as a way to progress, especially if cost implications are relatively low.
- The question remains, why has low cost seasonal adaptation not already been implemented?
- The more it's considered, seasonal adaptation lacks clarity for some – what exactly happens and how?
- Others think that it could easily cost a lot but provide few, if any, improvements.

Ranked

10th

out of 11 DWMP initiatives

Key driving factors

- Environmental benefit
- Low cost
- Not fixing the root cause

Top emojis

associated with this initiative

The final verdict

A 'low risk' initiative but has limited understanding and generally seen as something that should be happening in the background anyway.

> "If the seasonal adaptation is so simple, so cheap to implement & has such a great benefit why haven't you done it before now?"

InSites Consulting

Cost vs. impact is questioned, with a view that it isn't solving the problem, merely moving the problem elsewhere

Initial reaction

- The cost is a concern with people unsure of how impactful it will actually be; is this solving the issue or just moving the problem from one area to another?
- Requires lots of new infrastructure, with associated costs.
- Whilst it could be effective in solving local-level issues in the short-term, it does lead to disruption for the wider area and environment.

As knowledge builds…

- Views stay the same – it does not feel like it is solving the underlying issue, rather, it is just shifting the problem.
- Feels like a huge undertaking, compared to other initiatives focused on capacity, which should be looked at first.

Ranked

11th

out of 11 DWMP initiatives

Key driving factors

- Major disruption
- High cost
- Environmental concerns
- Not fixing the root cause

Top emojis

associated with this initiative

The final verdict

A 'last resort' option, which has high associated costs and doesn't fundamentally solve the problem. But could be considered if deemed absolutely necessary longer-term – would need to be planned for and approached proactively rather than reactively.

> "This just feels like a last resort if the cheaper and quicker options don't work."

Views on individual WRMP initiatives

in the flow
in partnership with United Utilities

Essential for behaviour change, giving people the tools to learn as well as make personal savings

Initial reaction

- Helping to promote a crucial message about responsible use – empowering customers by giving them the tools to act.
- Should be tied in with savings on water bills to help motivate customers
  - especially helpful for families or low income households.
- Small gains can have major impact.

As knowledge builds…

- No real change is how it's viewed – just some lingering doubts about whether this will be cost effective, have sufficient uptake to make a tangible difference.
- Devices will be especially beneficial for those on a water meter trying to stay conscious of their water usage.
- Helps change attitudes to water wastage as well (e.g. leaky toilets).

Ranked

1st

out of 14 WRMP initiatives

Key driving factors

- Long term sustainable solution – collective responsibility
- Reduction in demand
- Cost vs impact

Top emojis

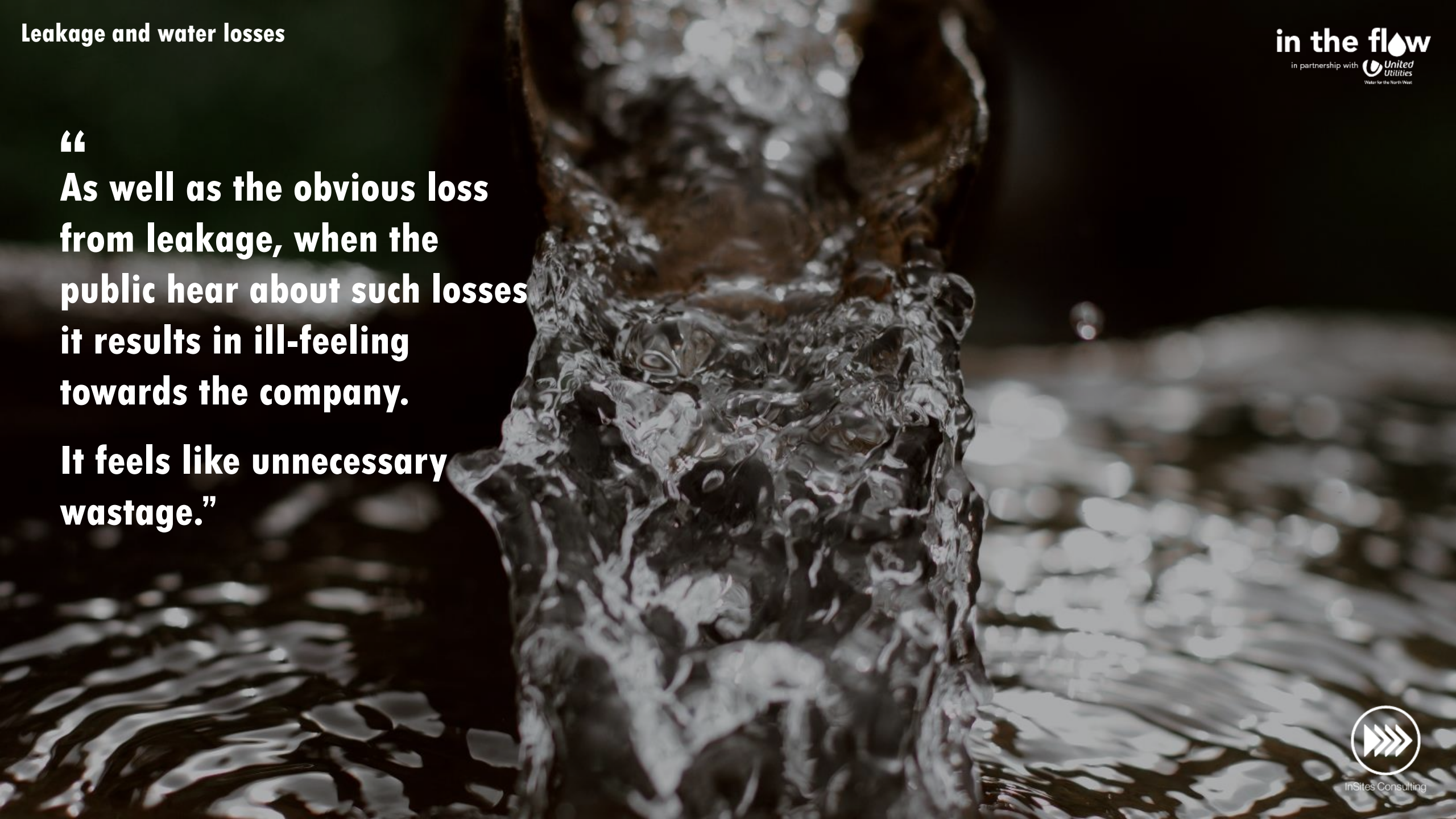
associated with this initiative

The final verdict

First port of call for changing society's attitudes and relationship to their water supply, plus could offer cost benefits to bills too.

> "You need a more out there advertising campaign which outlines money saved by customers who engage with water saving activities and devices."

InSites Consulting



“As well as the obvious loss from leakage, when the public hear about such losses it results in ill-feeling towards the company.

It feels like unnecessary wastage.”

in the flow
in partnership with United Utilities

A ‘no brainer’ which addresses many existing frustrations and sends the ‘right’ message to customers

Initial reaction

- A top priority, mainly as it can have a direct impact on domestic water access and pressure.
- Acknowledge can cause disruption but worth it - belief fixing now would save money and inconvenience in the long run.
- Felt that leaks are important to fix to send out the right message to customers, even if the overall water loss is relatively low.

As knowledge builds…

- Helps to alleviate frustration when hosepipe bans or price hikes introduced despite evidence of leaks in the local area.
- Important to fix existing supply before damaging the environment in search of more resources.

Ranked

2nd

out of 14 WRMP initiatives

Key driving factors

- Long term cost saving
- Disruption
- Customer relations
- Environment

Top emojis

associated with this initiative

The final verdict

Important in helping keep customers on side. Worth considering the comms around leaks so customers understand UU response when local leaks do arise.

“This is crucial. I’ve recently been affected by leaking pipes situated close to where I live. There is nothing worse than low pressure or no water.”

InSites Consulting

in the flow
in partnership with United Utilities

Should be mandatory eventually to encourage people to be more watchful of their water usage

Initial reaction

- An important tool in helping bring water usage into people's consciousness and affect long-term behaviour change.
- Makes sense to be billed for usage, just like other utilities.
- Those with meters think it should be mandatory in all homes – they currently feel penalised vs. those without.
- Rejected out of hand by a small minority who feel they inflate bills and restrict people's right to use water.

As knowledge builds…

- Fairer than fixed rates as it gives people the choice to use water however they like, provided they are prepared to pay. for it (with proceeds reinvested in the infrastructure).
- Should work with local authorities and property developers to speed up roll out.
- Should not be limited to domestic use, should apply to businesses usage, perhaps more so than in homes.
- Only push back is about how they are managed/bills; concern responsibility for leaks will shift from UU to the customer.

Ranked

3rd

out of 14 WRMP initiatives

Key driving factors

- Education
- Cost saving
- Fixing the root cause

Top emojis

associated with this initiative

The final verdict

One of the fairest way to make people aware and accountable for their usage, without penalising certain groups/circumstances.

> **"I have a water meter and I think its unfair that there is a large proportion of the population that don't.**
>
> **We see all the adverts for hot tubs and I think "I wouldn't have one because I can't afford to fill it."**

InSites Consulting

“On paper it sounds great to work with other landowners.

In practice, this may well prove to be really hard work, and may take a lot of time, energy and money to implement.”

in the flow
in partnership with United Utilities

Managed in the right way this offers significant benefits to water management and the environment – why is it not done already?

Initial reaction

- Cleaner water and less chemicals has great appeal and ties into wider concerns about the environment, sustainability and health, as well as water supplies.
- Idea of collaboration for the greater good feels sensible and necessary.
- An obvious solution (at least partially) to challenges faced.
- Dependent on buy-in from all stakeholders for success – resistance/reluctance to comply could limit its impact/benefits.
- Some enforcement might be required (and might not be popular).

As knowledge builds…

- No real change in views – clear benefits, industry and landowners need to do their part.
- An obvious, 'win-win' option, raising questions as to why this is not being done already.

Ranked

4th

out of 14 WRMP initiatives

Key driving factors

- Tackles root cause
- Benefits individuals & the region as a whole
- Low cost
- Low disruption
- Environmental benefit

Top emojis

associated with this initiative

The final verdict

Ticks lots of boxes for water supply, with added benefits to the environment and people's health.

Low cost and low risk so should be implemented ASAP.

> "This one is a win all round when you look at the impacts: Improvement is high, investment is low, environmental and carbon is positive and no disruption."

InSites Consulting

A sustainable option but one that would need a big 'PR drive' to manage public perceptions of 'dirty' water

Initial reaction

- Makes sense rationally, but difficult for people to get onboard with.
- Would need reassurance the water is as clean as it was initially before feeling comfortable – people torn on whether or not it would better to inform people!
- A minority discount entirely, believing it risks health issues (unknown long-term effects).
- Cost is a concern, but ultimately backed due to the different this could make long-term as populations grow/demand increases.
- Environmental benefits such as improved water quality in rivers and seas is a compelling argument.

As knowledge builds…

- Acceptance that water is already recycled in many ways already.
- The framing and comms around this would need to be carefully managed to get people's backing.

Ranked

5th

out of 14 WRMP initiatives

Key driving factors

- Sustainable
- Addresses supply issues
- Reservations about impact on individuals

Top emojis

associated with this initiative

The final verdict

Quite a tough one to sell and get the public onboard. But makes logical sense.

> "I'm little be sceptical about reusing water, but if you can prove that it be 100% safe for people to drink, maybe I can get behind this idea."

“I think this is a good idea.

Most things need modernising and by having the treatment works cleaned and repaired, things should run a lot smoother.”

Expected as standard practice, but to be effective needs to happen as part of a wider upgrade to the system

Initial reaction

- Servicing and modernising processes and infrastructure in line with demand is an important part of running any efficient operation, so much so it is surprising this is not done already.
- Felt this initiative could help reduce the need for other more invasive initiatives such as building new reservoirs etc.
- However, it seems counter productive to do this before addressing the leaks and other inefficiencies in the system.

As knowledge builds…

- Would expect this to be routine, raising questions as to why this would require additional investment rather than being imbedded into the running costs or costs borne by housing developers.
- Some question marks about why the investment, disruption and environmental impact is so high if its largely a case of modernizing or expanding existing treatment works.

Ranked

6th

out of 14 WRMP initiatives

Key driving factors

- Efficiency of the system
- Environmental impact
- Cost vs long term benefit

Top emojis

associated with this initiative

The final verdict

Is expected already as part of a well managed and efficient operation, surprised and slightly concerned by the additional costs this would involve.

> “It sounds common sense really surely and something that should be done already.”

in the flow
in partnership with United Utilities

Worth considering as a way to encourage water saving, but felt to be unfair if ill managed

Initial reaction

- Push back – felt to be punitive, unfair and could penalise certain groups in society.
- However would reward those conscious of water usage and incentivise customers to save water.
- Concerns that it could be hard to administer/police.

As knowledge builds…

- Generally met with scepticsm but not outright rejection – although future bill payers are strongly against.
- Some unease about ‘carrot & stick’ approaches, but recognise education alone might not change behaviour.
- Should only be considered in combination with broader behaviour change/educational initiatives.
- Ideas might help/make people think more carefully about their water usage and potential wastage, and reward those who are careful and conscious about usage.
- But fairness/social responsibility, and possibility of ‘water poverty’ remains a concern, with no real reference to this.
- Some have no issue with this approach for businesses, but would prefer not imposed on the general public.

Ranked

7th

out of 14 WRMP initiatives

Key driving factors

- Impact on individual customers
- Education & changing behaviours

Top emojis

associated with this initiative

The final verdict

Levers that could be used alongside other initiatives, could increase ‘tension’ between customers and UU, and heighten expectations around leakage/water losses.

> “I think we need to be really careful when we think about what is peak and what is off peak and how fair it is.”

InSites Consulting

A sensible (if not costly) solution, but less invasive measures should be considered first

in the flow
in partnership with United Utilities

Initial reaction

- Potentially inevitable due to population growth and the solution makes sense.
- Indeterminate impact on wildlife, local environments and green spaces is a concern.
- The amount of time to build (15 years) is surprising and considered a major downfall, as are the associated costs.

As knowledge builds…

- Increasing concern about damage to natural habitats, although some appeal in increased recreational space if extended reservoirs rather than building new ones.
- Potentially worth considering as a long-term plan/investment to increase capacity and resilience in away that's closely aligned with the existing supply/infrastructure.
- Questions over whether such drastic action is actually necessary if other water management techniques are effective.

Ranked

8th

out of 14 WRMP initiatives

Key driving factors

- Environmental concerns
- Longevity of disruption & cost

Top emojis

associated with this initiative

The final verdict

One of the more palatable major infrastructure options, but the level of disruption and investment over such a long period means it needs strong justification.

> "The pros and cons have changed my mind; I favoured building new reservoirs or increasing capacity of existing ones until I read that it could take up to 15 years, never mind the cost."

InSites Consulting

in the flow
in partnership with United Utilities

A costly initiative which doesn't feel necessary in a 'rainy' North West; what is the benefit to our region?

Initial reaction

- Another 'extreme' measure; only viable in emergencies, but preferred to taking from natural sources.
- Concerns around high investment and disruption over long periods of time.
- And questions about necessity and how impactful it will prove.

As knowledge builds…

- Remains hard to imagine a time when it will be necessary to transfer water into 'rainy' NW.
- Reading between the lines, people assume it will mean a 'one-way' arrangement for transferring 'Northern water' to the South of England (which there is low-level resentment about).
- Issue of NW water quality vs. other regions crops up (hesitant having sampled water in other areas).
- However, people concede there seems to be a fairly compelling case for helping meet future demand.
- More open to idea once positioned as a 'national water grid' similar to oil or electricity.

Ranked

9th

out of 14 WRMP initiatives

Key driving factors

- Regional benefit
- Impact
- Addresses demand

Top emojis

associated with this initiative

The final verdict

Drastic and abstract; customers struggle to see how they will be the beneficiaries of this solution.

> "I suspect the North West region usually has a better supply than other areas anyway, so I'm not sure how often this would be needed."

InSites Consulting

“
It sounds incredibly expensive and unnecessary.

Even after treatment, the idea of brine and saltwater is off-putting.

As far as possible, it’s best to preserve our marine environment.”

in the flow
in partnership with United Utilities

A drastic, costly sounding measure; but could offer a long term solution if essential for meeting demand

Initial reaction

- Offers a solution to the increasing issues of demand.
- Makes sense to utilise the sea as an untapped resource, especially as we are an island.
- However difficult to imagine a situation where this is a credible or necessary initiative given the other options available.
- Concerns about water quality (rated highly in the NW) – however well its treated, the idea is off-putting.
- Reservations about the scale and cost of infrastructure needed to do this, and environmental impact.
- References to other countries (e.g. Dubai) implementing this; reassuring for some as 'tried and tested', for others it makes it feel more drastic – and people are quick point out such places have to drink bottled water.

As knowledge builds…

- Still largely ruled out, remain adamant there is/should be sufficient supply from other fresh water sources in NW.
- Some younger customers actually assumed existing supplies are from the sea – but are against the idea when realise not the case.
- Some concede it could be graded and used for other purposes (e.g. industrial use).
- But firmly believe should only consider as a last resort for periods of extreme drought.

Ranked

10th

out of 14 WRMP initiatives

Key driving factors

- Cost
- Disruption
- Environmental impact

Top emojis

associated with this initiative

The final verdict

Feels extreme and difficult to imagine a time when this will be necessary vs. other 'less drastic' options.

> "I don't like the idea of using sea water.
>
> It is already polluted and could harm sea life."

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in the flow
in partnership with United Utilities

Open to the idea as a new water source, but more information is needed to build confidence around environmental impact

Initial reaction

- Smart and effective - feels practical in terms of impact (water wouldn't dry up and less polluted). Also cost effective.
- A popular solution due to low environmental impact on surroundings and wildlife, but more info is needed on how ecosystems would be affected before having full confidence in backing.

As knowledge builds…

- Like the way it can be used only when necessary; referred to as 'a fall back option for the future'.
- More questions emerge about how it would work:
  - Impact on water taste, potential long term consequences (e.g. sink holes – with some references to mining pits) and the difference between extracting and storing water.
- Results in many being hesitant to comment too confidently on this initiative either way.

Ranked

11th

out of 14 WRMP initiatives

Key driving factors

- Cost
- Environmental impact
- Helps manage demand

Top emojis

associated with this initiative

The final verdict

In theory sounds like it has merit and potential. But a lack of understanding and concerns around the environmental impact leaves people hesitant about the idea.

> "The idea I liked best was underground water storage. This would be the most practical and would cause less disruption to the environment."

InSites Consulting

“I don’t have an issue with hosepipe bans.

Maybe if we managed our water better we wouldn’t need to take it from somewhere else.”

in the flow
in partnership with United Utilities

Potentially a way to manage supply in extreme situations, but isn't seen as a particularly sustainable solution

Initial reaction

- Less awareness around this initiative; few knew permits existed.
- Concern over the environmental impact of reducing water in rivers and lakes; however some trust that the Environment Agency would deny permits if wildlife was likely to be endangered.
- Seen as short term solution, not sustainable for prolonged amount of time.
- Could help reduce hosepipe bans, however for some these would be preferable to more drastic measures such as this.

As knowledge builds…

- Thought to be very reactive rather than pro-active.
- Feeling that the system can be made more resilient in other ways, negating the need for measures like this.
- Doesn't address demand issue - shouldn't be getting to this point, and other measures such as hosepipe bans should come into play before this is needed.

Ranked

12th

out of 14 WRMP initiatives

Key driving factors

- Not addressing root cause / demand
- Environmental impact

Top emojis

associated with this initiative

The final verdict

Seen as a 'lazy' approach that sacrifices the environment. Could be avoided with more education, responsible use and making the system more resilient in other ways.

> "I'm a little worried that wildlife would be affected if this plan went ahead. I feel people need to be made aware of water shortages throughout the year and try to save water continuously not just in dry months."

InSites Consulting

An area people struggle to relate to – lack of assurances, especially regarding the environment make it challenging to back either way

Initial reaction

- Praised for its collaborative approach in sharing resources and making the most efficient use of existing supplies.
- Raises questions around the bureaucracy;
  - How easy would be to setup and manage?
  - Presumably building works/projects would then have to follow – how long before it has any impact?
  - Would this actually work in times of need?
- Suspicions this may be a money making scheme.

As knowledge builds…

- Uncertainty about who benefits and how (struggle to imagine NW needing additional supply).
- Lacks assurances around the who the other parties involved are, oversight, and potential impact on the environment.

Ranked

13th

out of 14 WRMP initiatives

Key driving factors

- Collaboration
- Impact/ feasibility
- Environmental

Top emojis

associated with this initiative

The final verdict

Too many unknowns, and feels too technical for customers to make a confident judgement on; who benefits and how, feasibility and the environment remain concerns.

> **"How would this be managed? How long would it take to actually GET the water to a population once all the red tape had been waded through?"**

A sensible solution to the uncertainty of climate change, as long as mixing water sources doesn't increase treatment costs

Initial reaction

- Concern that mixing of water supplies may lead to higher costs.
- Some reaction to the taste of water changing.
- Grading suggests has its merits, but notion of prolonged drought in 'rainy' North West doesn't seem likely – general belief that with other measures and forward planning the system should be resilient enough to cope.

As knowledge builds…

- Concern grows about impact on water quality & taste.
- Frustration this doesn't address the root cause of unreliable water supply.
- Question the use of grading in water supply to allow 'good enough' water to be used for some purposes.

Ranked

14th

out of 14 WRMP initiatives

Key driving factors

- Doesn't address root cause
- Water taste/quality
- Cost

Top emojis

associated with this initiative

The final verdict

Least appealing as doesn't address the root cause; seen as a short term solution with potentially high associated costs.

> "I don't think the mixture of different sources is a great idea as surely it will lead to higher costs of water treatment."

Appendix

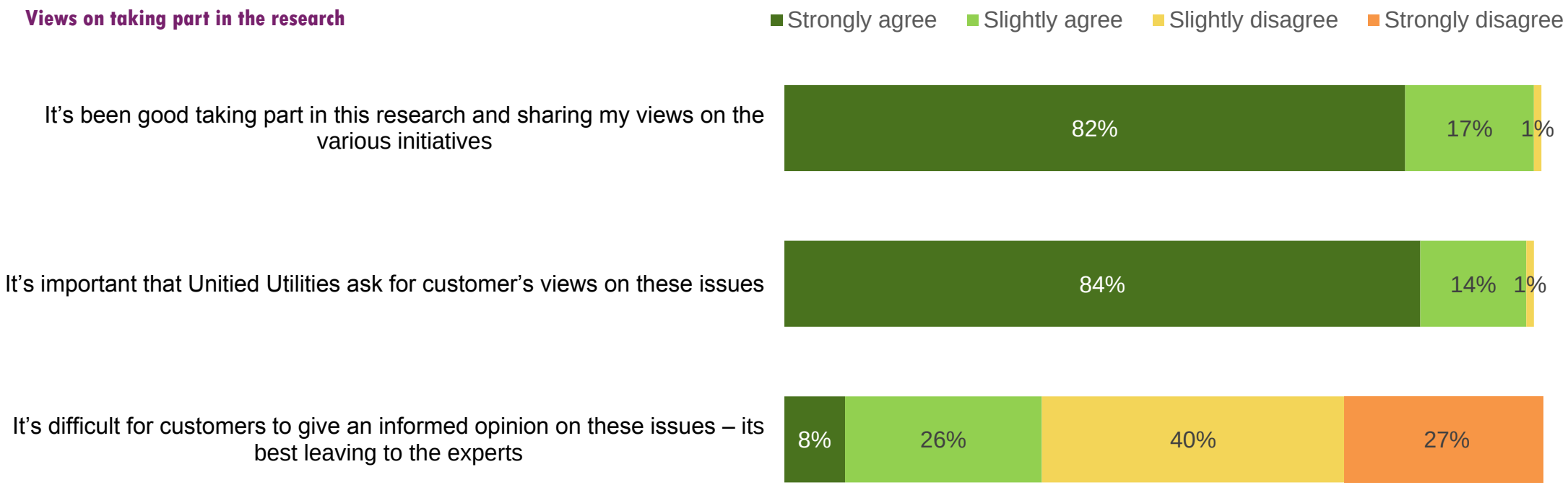

United Utilities
Water for the North West
InSites Consulting

Who we consulted with (all community members)

North West County	
Greater Manchester	32%
Cumbria	7%
Lancashire	30%
Merseyside	17%
Cheshire	13%
Location type	
Urban	19%
Suburban	52%
Semi-Rural	11%
Rural	11%
Coastal	9%
Water Meter	
Yes	50%
No	50%

Age	
16-29	11%
30-39	21%
40-49	22%
50-59	18%
60-69	21%
70+	8%
Gender	
Male	40%
Female	60%
People in household	
Single person	21%
Partner	64%
Children	39%
Other people	11%

Views on taking part in the research



Base: All survey participants (90)

Business users are generally open to initiatives that will guarantee supplies – and accept use may need to be managed through tariffs

Customers' final verdict on initiatives – where groups over-index on initiatives rated 'very acceptable'*

Vulnerable customers

Over-index on (i.e. **more likely** to rate as 'very acceptable'):

- Leakage and water losses
- Water Meters
- Increasing capacity

Business users

Over-index on:

- Receiving alternative water supplies during droughts
- Taking water from the sea
- Taking water from underground
- Increasing capacity (water treatment works)
- Leakage and water losses
- Working with other organisations
- Seasonal adaptation
- Installing sewer flooding protection
- Educating customers
- Fees, Tariffs and charges
- Water Meters

Future Bill Payers

This group seem more open initiatives that generally aren't rated as highly, over-indexing on:

- Taking water from the sea
- Transferring water in from other areas
- Transferring sewage to other areas
- Reusing water
- Drought permits and orders
- License trading

* Caution: Very small base sizes for sub-group audiences – treat as indicative

Customers' location can impact views on bringing new water supplies into the area

Customers' final verdict on initiatives – where groups over/under-index on initiatives rated 'very acceptable'*

Urban/ Suburban

Over-index on:

- Receiving alternative water supplies during droughts
- Taking water from surface water
- Managing the land to improve water quality

Rural/Semi-Rural/Coastal

Over-index on:

- Water Meters
- Using technology to control sewers and monitor for problems
- Transferring water in from other areas
- Taking water from underground
- Reducing stormwater from getting into the sewer

* Caution: Very small base sizes for sub-group audiences – treat as indicative

Those without water meters favour initiatives that improve supply and capacity, whilst water metered customers support reducing demand

Customers' final verdict on initiatives – where groups over/under-index on initiatives rated 'very acceptable'

Water Metered

Over-index on:

- License trading
- Water Meters

And under-index on:

- Transferring sewage to other areas
- Transferring water in from other areas
- Fees, Tariffs and charges
- Installing sewer flooding protection at home
- Receiving alternative water supplies during droughts

Not Water Metered

Over-index on:

- Transferring water in from other areas
- Transferring sewage to other areas
- Receiving alternative water supplies during droughts
- Fees, Tariffs and charges

And under-index on:

- License trading
- Water Meters

* Caution: Very small base sizes for sub-group audiences – treat as indicative

The younger and older age groups are more open to transferring water from one area to another

Customers' final verdict on initiatives – where groups over/under-index on initiatives rated 'very acceptable'*

16-39 years

Over-index on:

- Transferring water in from other areas
- Transferring sewage to other areas
- License trading

40-59 years

Over-index on:

- Fees, Tariffs and charges
- Using technology to control sewers and monitor for problems

60+

Over-index on:

- Receiving alternative water supplies during droughts
- Increasing capacity
- Transferring water in from other areas
- Reducing stormwater from getting into the sewer

* Caution: Very small base sizes for sub-group audiences – treat as indicative

Higher income households are generally more open to measures that regulate use, as well being slightly more amenable to reusing water and certain alternative sources

Customers' final verdict on initiatives – where groups over/under-index on initiatives rated 'very acceptable'

Higher income households (£40k+ pa)

Over-index on:

- Promoting water efficiency
- Reusing water
- Water Meters
- Managing demand through Fees, Tariffs and Charges
- Taking water from underground
- Taking water from the sea
- Drought permits and orders
- Licence Trading

Lower income households (>£40k pa)

Over-index on:

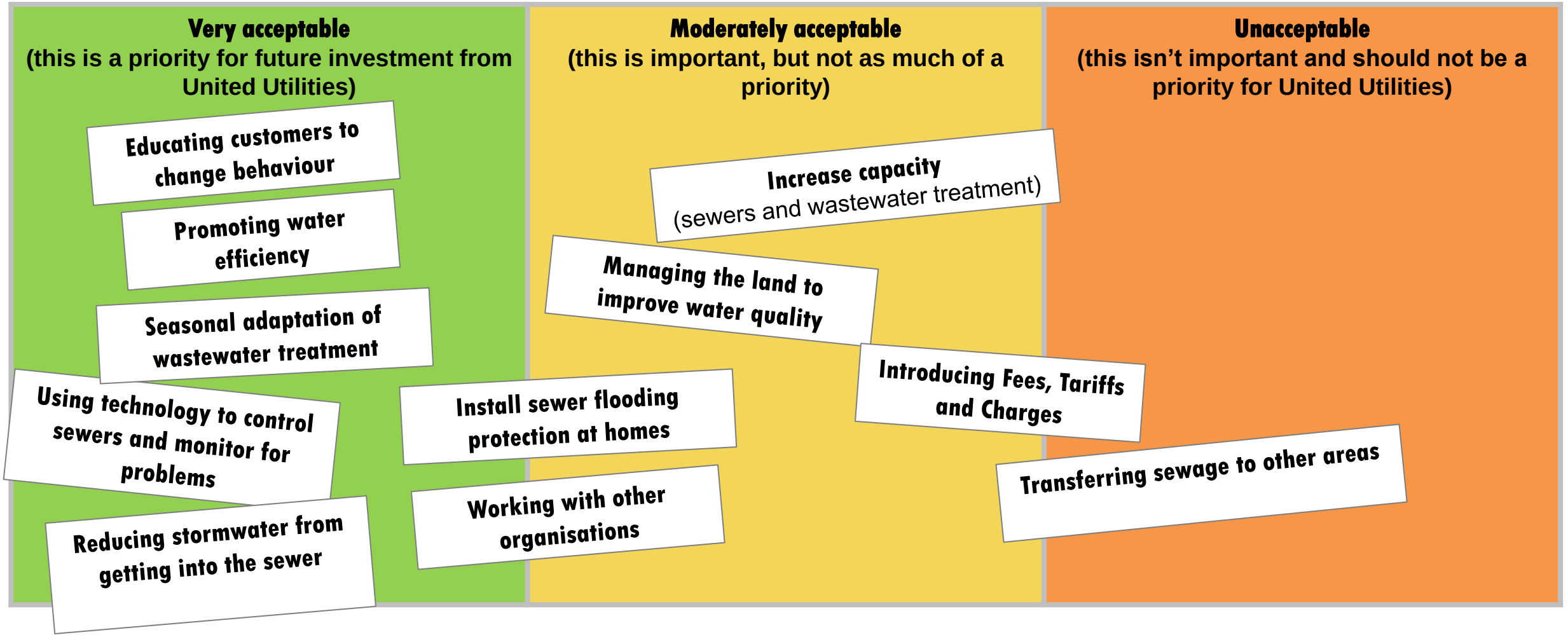
- No initiatives

And under-index on:

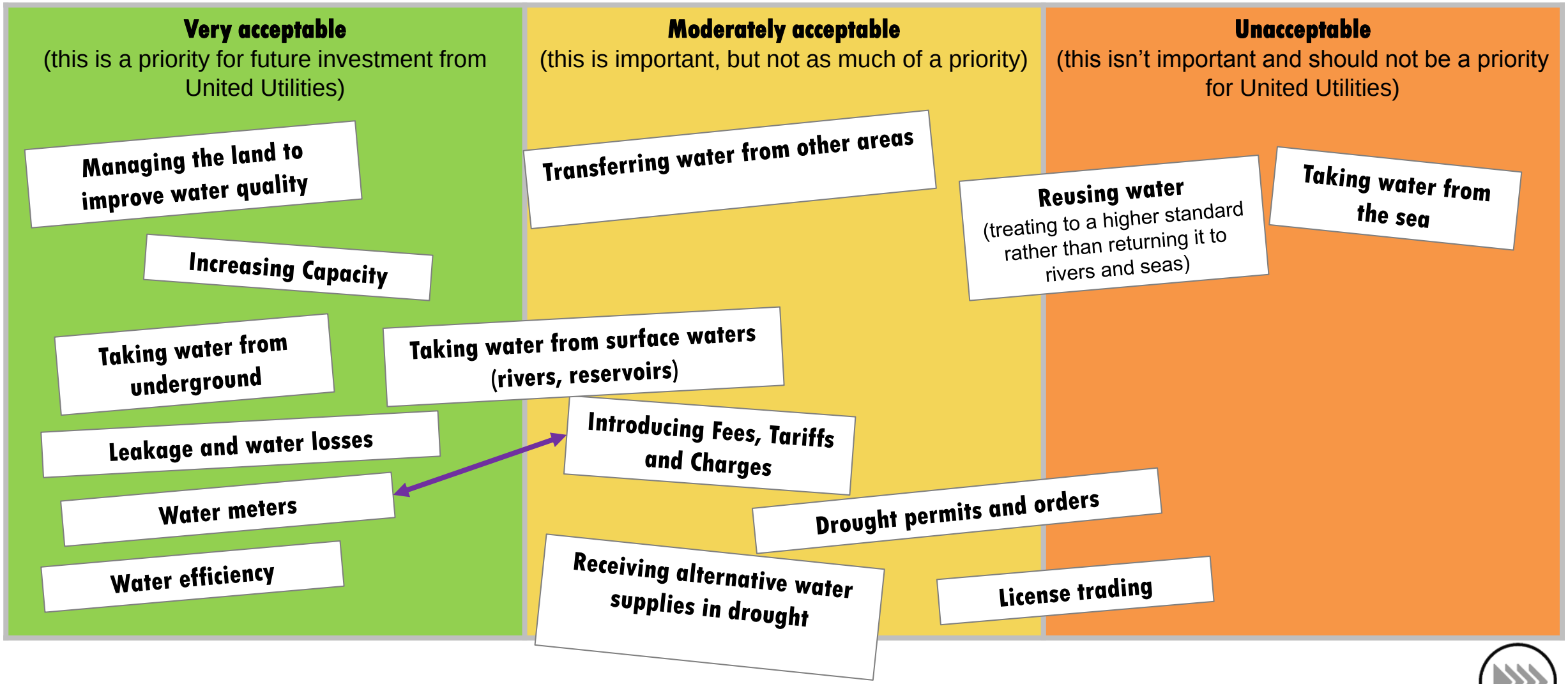
- Taking water from the sea
- License trading

* Caution: Very small base sizes for sub-group audiences – treat as indicative

Group discussion sorting: DWMP

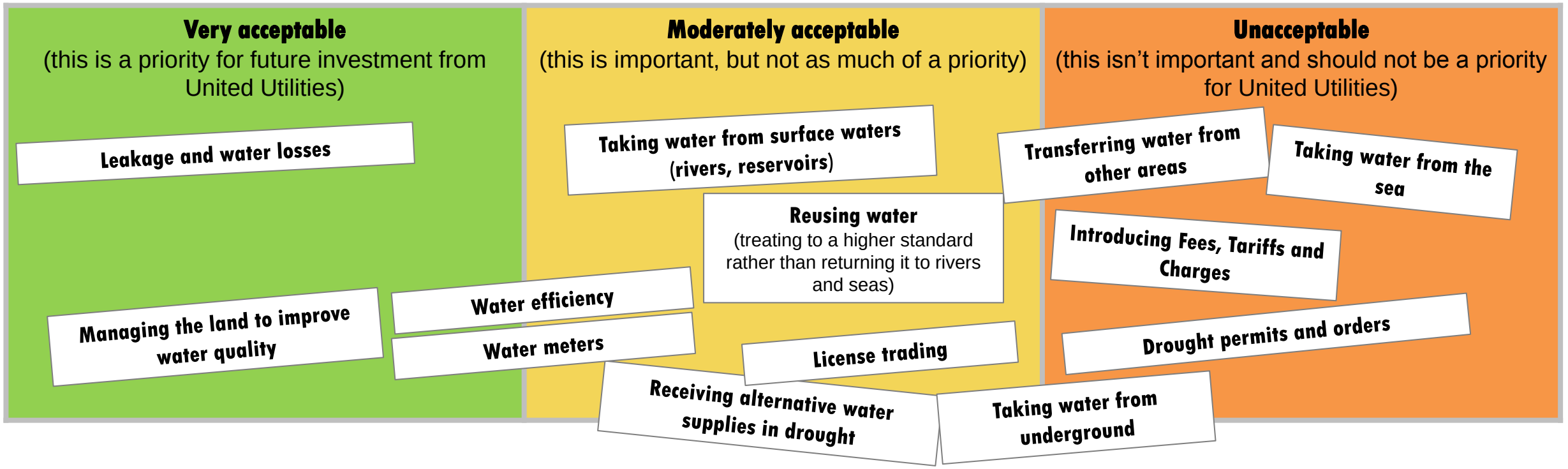


Group discussion sorting: WRMP

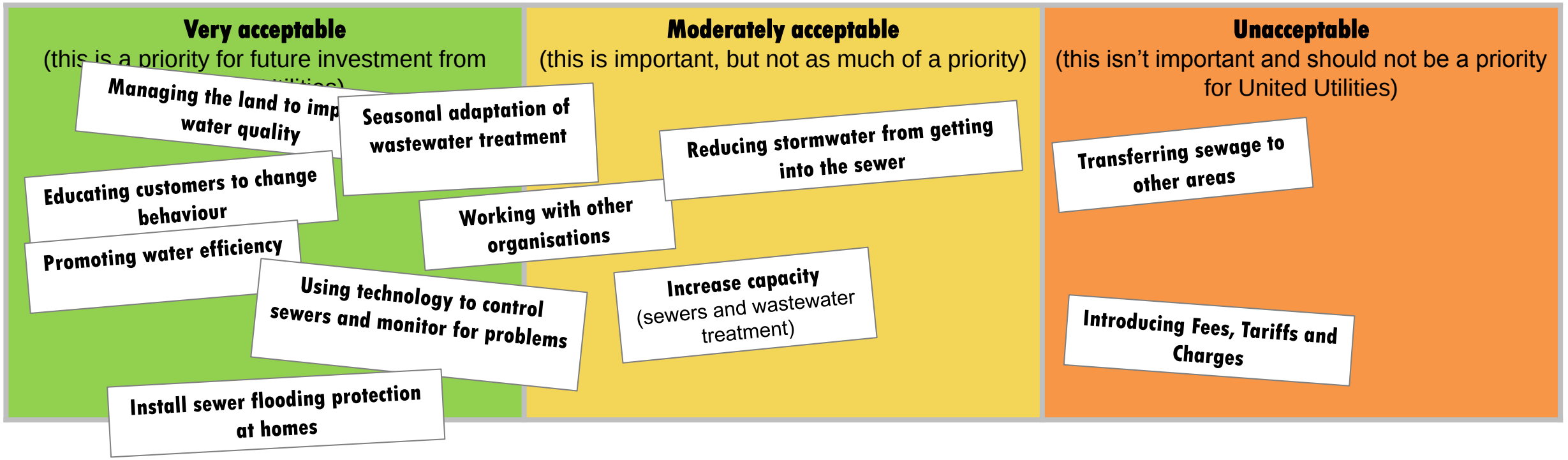


* Arrow refers to initiatives seen as linked, with water meters preferred over fees, tariffs and charges

Future Bill Payers Group Discussion Sorting: WRMP



Future Bill Payers Group Discussion Sorting: DWMP



Initiatives tested: WRMP

WRMP	Category	Description
Transferring water from other areas	Supply	*In order to increase our water supply and help us to cope with long periods of dry weather, we could consider transferring water into our region from other water companies. Another option to consider would be intra-company transfers. This is where water is moved from existing sources or areas with plentiful supply to areas where the water is scarcer, within the North West region.*
Taking water from the sea	Supply	*Water is taken from the sea and treated to remove the salt and meet required drinking water quality standards, before being used for drinking water supply. This technology has proven to be suitable for large scale water supply schemes around the world, but is not currently widely used by all UK water companies. .*
Taking water from surface waters (rivers, reservoirs)	Supply	*UU could take more water from rivers it already uses for water supply purposes or apply for a license to take water from other rivers not currently used. UU could also build new reservoirs in the North West region to allow additional storage capacity. In addition to this, the size of reservoirs can be increased to store more water. This means that more water can be collected and stored when water is plentiful and used when it is not.*
Taking water from underground	Supply	*UU could increase the amount of water taken from the ground from existing or new sources. This water is naturally replaced when it rains. Another option would be to actively store water underground during wet periods, which we could then use during dry periods (artificial storage and recovery).*
Managing the land to improve water quality	Supply	*We own and manage 56,000 hectares of catchment land and work with third parties to encourage the adoption of best practices on the remaining 720,000 hectares of non-owned catchment land. The way the catchment land is managed is really important, as it affects the quality and quantity of the water that reaches our treatment works.* *There are a number of actions that could be taken in the catchment to improve the quality of water, such as managing the use of pesticides around our sources. Taking these actions would provide opportunities to increase the amount of water we can supply from treatment works for example, as :* *1. Less treatment means less water is consumed in the treatment process* *2. Water can be captured that was previously untreatable/ too costly to treat*
Increase capacity (water)	Supply	*These options would increase the amount of treated (drinkable) water that comes out of treatment works. This would be achieved through identifying areas of improvement including identifying things that need replacing/ cleaning and areas where the process can be made more efficient.*
Water reuse	Supply	*Treated wastewater from sewage treatment works would be treated to tap water standard (as required by public health regulations) and then returned to the drinking water supply.*

Initiatives tested: WRMP (Continued)

WRMP	Category	Description
Drought permits and orders	Supply	*All water companies have a license from the Environment Agency to take water from rivers, lakes, boreholes and reservoirs for public water supplies. The licence ensures that we do not take too much water and leave enough for the environment and wildlife. However, during a drought when water supplies are low, we may apply to the Environment Agency for drought permits or drought orders.* *Drought permits and drought orders are drought management actions that, if granted by the Environment Agency, can allow us to more flexibly manage water resources. For example, if the level of water in our reservoirs is low, we could potentially ask to take more water than normal from some of our rivers to compensate and keep customers supplied with drinking water. These actions increase the chances of the reservoirs refilling when the weather gets wetter.*
License trading	Supply	*The amount we can abstract (take) from sources is governed by the abstraction licence we have been granted by the Environment Agency. We could buy / sell abstraction licence rights from / to other individuals, companies and organisations.*
Receiving alternative water supplies in drought	Supply	*A mixture of ground water and water from rivers and reservoirs could be used during times of water scarcity (this is known as conjunctive use).*
Leakage and water losses	Supply	*Reducing the amount of raw water that is lost (raw water losses).* *UU can reduce leakage further by implementing new control systems to manage the pressure better. UU can also employ more resources to find the leaks and then carrying out repairs, or upgrade to newer mains. There are also other options available such as acoustic loggers and more recently we have even trained a sniffer dog to help pinpoint problem pipes in rural areas.*
Water meters	Demand	*Increasing the amount of customers who have water meters means people pay for what they use and typically can result in customers reducing how much water they use, perhaps by also making use of water saving devices. In 1990 it became compulsory for all newly built homes to be fitted with a water meter. When you move into a home which already has a water meter fitted, you cannot make a request for it to be removed.*
Fees, Tariffs and charges	Demand	*In order to reduce demand, fees and tariffs could be introduced to influence customer behaviour. These could take a number of forms. Examples could include:* *- Time of Day tariffs (e.g. water cheaper at off-peak times)* *- Reduce bill by an agreed amount if the property has water efficient products fitted.* *- Introduction of special fees – charge special (additional) fees on households who use garden sprinklers, hosepipes, outside taps or swimming pools.* *- Water efficiency incentives for business customers (one-off payment towards the cost of water efficiency interventions)*
Water efficiency	Demand	*Promoting water efficiency involves educating customers of the benefits of saving water and may include giving away or selling water saving devices like showerheads, water butts or services to reduce water losses such as fixing leaky toilets.*

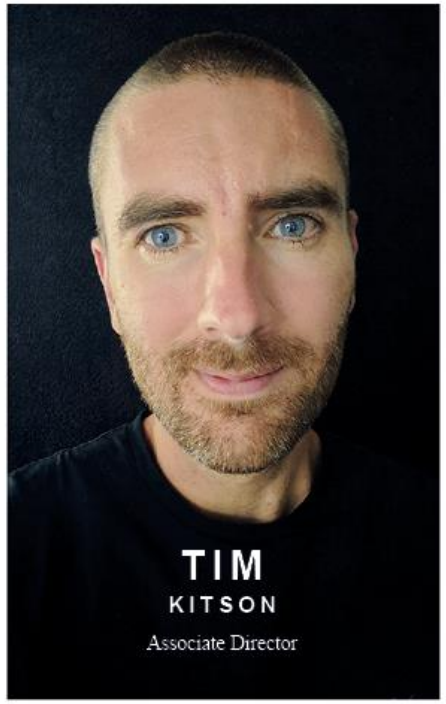
Initiatives tested: DWMP

DWMP	Category	Description
Increase capacity (sewers and wastewater treatment)	Capacity	*These options reduce the risk caused by climate change and population growth by building more capacity. This could be in the form of increasing the size of existing sewers, constructing storage tanks, adding new treatment technologies to existing sites or replacing existing assets. When cleaning wastewater and sludge we can do so in ways which have additional benefits, for example recovering materials to recycle or harvesting gas for energy production.*
Managing the land to improve water quality	Capacity	*Water quality in rivers and lakes can be badly affected by other sources, for example water flowing into them from farms and factories. This water can contain pesticides and chemicals which have a negative impact on rivers and lakes. There are a number of actions that could be taken to improve the quality of water in rivers and lakes. There are many organisations whose work has an impact on rivers and lakes, such as farmers and highways drainage, so these options work best when we work in partnership with others to deliver them.* *One example of this is nutrient management. Phosphorous is a nutrient that is present in sewage. Too much phosphorous can be bad for aquatic creatures in rivers and lakes as it reduces the levels of oxygen in the water. Rather than use chemicals to remove phosphorous at sewage works as is currently done, United Utilities can work with local environmental bodies, businesses and landowners to reduce phosphorous pollution at source, for example working with farmers to improve the way farmyard slurry is stored to prevent it entering rivers and lakes.* *There are many chemicals which could be managed 'at source' in this way.*
Seasonal adaptation of wastewater treatment	Capacity	*We could adapt our treatment processes depending on the season instead of having a fixed approach to treating wastewater. This would involve less treatment when rivers and lakes are more healthy (e.g. higher water levels, good water quality) and more treatment when rivers and lakes are less healthy (e.g. low water levels and poor water quality).*
Educating customers to change behaviour	Demand	*Customer behaviour can have positive and negative effects on our ability to provide services. Flushing anything other than the 3 P's (pee, poo and paper) and pouring fats and oils down the drain causes fatbergs to form and prevents the sewer from transferring your wastewater. Promoting behavioural change includes educating customers about the impacts of unflushables and sewer flooding. It may involve giving away 'fat traps', educating on the 3 P's and working with business customers in restaurants and takeaways to reduce fats, oils and grease entering the sewer network. This option might involve working more with schools to educate future customers about the environmental impacts associated with water and wastewater.*
Fees, Tariffs and charges	Demand	*In order to reduce demand, fees and tariffs could be introduced to influence customer behaviour. These could take a number of forms and impact both domestic and business customers. Examples include:* *- Time of Day tariffs (e.g. water cheaper at off-peak times)* *- Reduce bill by an agreed amount if the property has water efficient products fitted.* *- Introduction of special fees – charge special (additional) fees on households who use garden sprinklers, hosepipes, outside taps or swimming pools.* *- Reduction in charges for properties which don't connect surface water (e.g. from gutters) to the sewer network* *- Incentives for property developers to develop low water footprint developments (disconnect surface water, rainwater*

Initiatives tested: DWMP (Continued)

DWMP	Category	Description
Water efficiency	Demand	*Promoting water efficiency involves educating customers of the benefits of saving water and may include giving away or selling water saving devices like showerheads, water butts or services to reduce water losses such as fixing leaky toilets.*
Transferring sewage to other areas	Capacity	*In order to deal with capacity issues we can consider transferring wastewater from one area to another. This option could involve moving part of the wastewater network to a different area where there is more capacity, or closing down a smaller wastewater treatment works and transferring all the flows to be sent to a larger wastewater treatment works. Another option is breaking down larger sewer networks into smaller ones and building new wastewater treatment works to treat the wastewater before returning it to the environment.*
Reducing stormwater from getting into the sewer	Capacity	*Most of the sewers in the North West are combined, this means we collect both the dirty water from your home (which we call wastewater) and the rainfall from gutters and roads (which we call surface water). We can invest in technology that will mimic natural drainage (like rain gardens and trees which filter and soak up water) to prevent this surface water from going into the sewers. This will reduce the likelihood of sewage flooding homes and streets, as well as reducing the environmental impact of storm overflows releasing dilute sewage to rivers.*
Using technology to control sewers and monitor for problems	Capacity	*We can invest in the latest technology to get more from our existing sewers and treatment works Across the whole wastewater system there are many pipes and pumps involved in transporting and treating the wastewater from sink to sea. There are opportunities to improve the way we operate the whole system using new innovative technologies to optimise the processes and use existing assets to their maximum potential. This could include monitoring the wastewater system remotely to identify faults and proactively fix them, using artificial intelligence.*
Install sewer flooding protection at homes	Capacity	*Where we know a property is at risk of sewer flooding from storm events causing sewers to be overloaded, we can install flood protection measures such as flood gates and valves in the sewer to protect properties from sewer flooding. This would only be done where there is repeated sewer flooding caused by overloading.*
Working with other organisations	Demand	*We could work with local councils and developers to support the development of low water footprint housing, reducing demand for water and reducing pressure on the sewer system by stopping surface water from gutters and roads getting in the sewer. We could also work with others to understand the source of pollutants in rivers and seas e.g. from industry and reduce them at the source*.

Your Project Team



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