WRMP24:
A research report

PREPARED FOR NIC JOHNSON

November 2021

Relish

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01 Project background and approach

DCWW is developing its 2024 Water Resource Management Plan addressing the supply demand balance in 2025-2050, but also considering longer term planning to 2080.

In order to support the business planning, there is a need to collect feedback from customers to understand their views, preferences and priorities on demand-side and supply-side response options. To answer these questions, we have undertaken 2 phases of research:

1. **A quantitative survey with n=800 DCWW customers, representative of those in Wales, to gather robust customer opinion on supply and demand side solutions**

   Our response comprised n=700 online interviews and n=100 CATI (computer assisted telephone interviews), to maximise the opportunity for different customer groups to take part

2. **A qualitative online community with 30 DCWW customers, to explore in depth rationale behind customer preferences and priorities**

   This comprised an online community lasting one week (part of a wider 4-week community), with c.90 mins of activities, enabling us to start high level and build towards a more informed viewpoint

Our qualitative sample includes a good cross-section of DCWW customers

Sample demographics

(Total sample, n=29)

All were:

- *Aged 18+*
- *Living in DCWW regions*
- *Customers of DCWW*

APPROACH

1 week of a 4-week online community

GENDER

x16 x13

LIFE STAGE

5x 18-22 live with parents

3x Pre-family

8x Family

8x Empty nester/retired

5x Vulnerable

LOCATION

Spread across:

- Clwyd/Gwynedd
- Powys
- Dyfed
- Glamorgan/Gwent
- Hereford/Chester

RURALITY

9x Urban/suburban

8x Semi-rural

12x Rural

SOCIAL

5x social tariff

24 x non social tariff

WATER METER

11x have a water meter

18x no water meter

Our quantitative sample is representative of the Welsh population

Sample demographics

(Total sample, n=807)

All were:

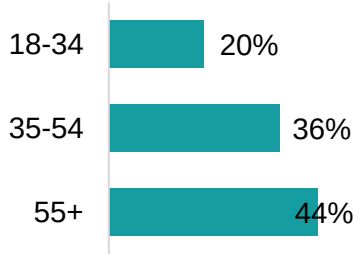
- *Aged 18+*
- *Responsible for paying water bill*
- *Customers of DCWW*

GENDER

Female: 50%

Male: 50%

AGE



LOCATION

Cardiff / Swansea / Rhondda / Newport: **35%**

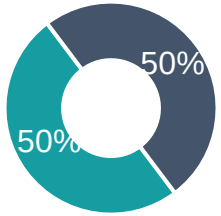
Herefordshire / Carmarthenshire / Bridgend / Gwynedd / Neath PT / Caerphilly / Conwy / Flintshire: **36%**

Other regions**: 29%**

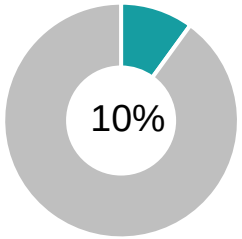
Data is weighted to ensure a match with census / customer data, by:

- *Gender*
- *Age band*
- *Household income*
- *Region*
- *Social tariff status*

HOUSEHOLD INCOME

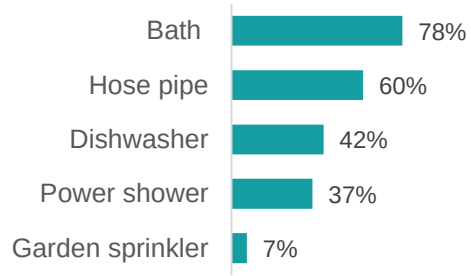


SOCIAL TARIFF STATUS



On social tariff

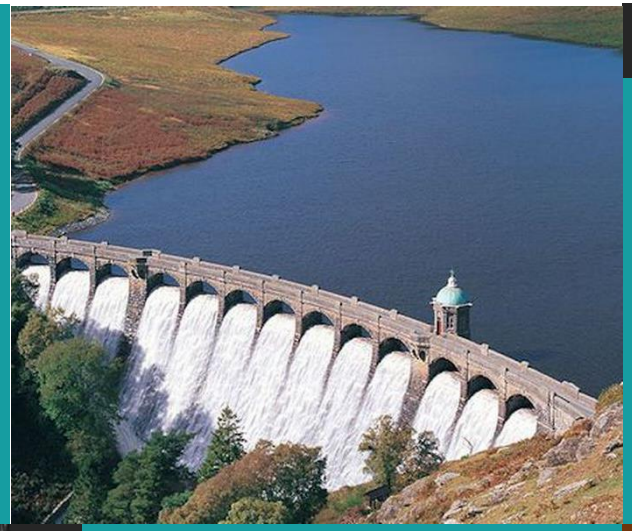
RELEVANT DEVICE OWNERSHIP

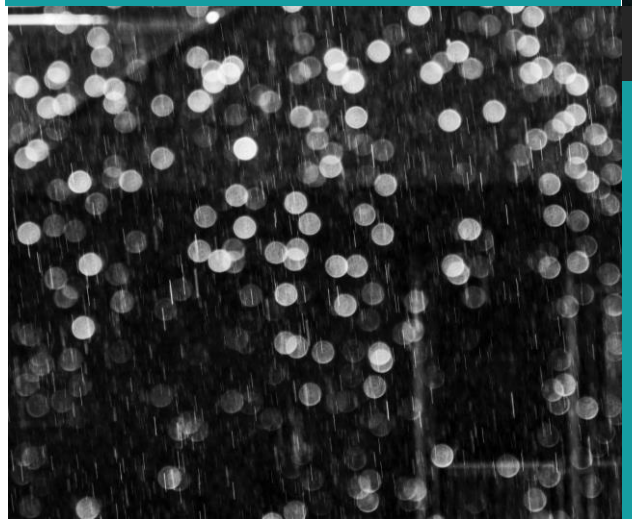


01 Key insights

1

Customers are often surprised to see that there is potential for water shortfall in Wales, and at how little rainfall is currently captured for water supply purposes. This reflects a knowledge gap around the impact of climate change on water as a resource in Wales.





2

Solutions that customers prioritise to address shortfall focus on doing more with existing resource rather than building new infrastructure – expanding storage via disused reservoirs, increasing water transfers, tackling network leakage, and DCWW helping them to reduce their consumption.

3

Customers accept that this combined demand and supply-side response will result in bill increases. They are prepared to help fund these measures, but also sound a note of caution around ensuring that bills remain affordable given the current cost of living 'crisis'.

4

Despite very little recent experience of restrictions on water use, customers in Wales claim they will accept their wider civic responsibilities during times of drought. They prioritise non-essential usage bans, and even rationing of water, over DCWW taking more from the environment.

Views and understanding of water shortfall

02 At an uninformed level, most believe there is sufficient water in Wales, with knowledge of the impact of climate change on water supply not yet widespread

Enough water in Wales because…

Potential shortfall because…

Majority view

- It's always raining!
- Water is something we take for granted
- Have not heard info to the contrary
- See big reservoirs in Wales
- Population is fairly careful with water
- Seasonal shortfall is always expected to an extent, so we should be able to cope with it
- Can pull water in from other regions if needed

Minority view

- Unstable weather and global warming
- Population growth and more new housing
- Leakage in old pipework
- Heavy industrial and farming usage
- Trading water with English regions
- Increase in tourism during pandemic
- More working from home during pandemic
- Consumers being wasteful with water

"As far as I know there is sufficient water. It rains enough in Wales so I assume we've got enough water."

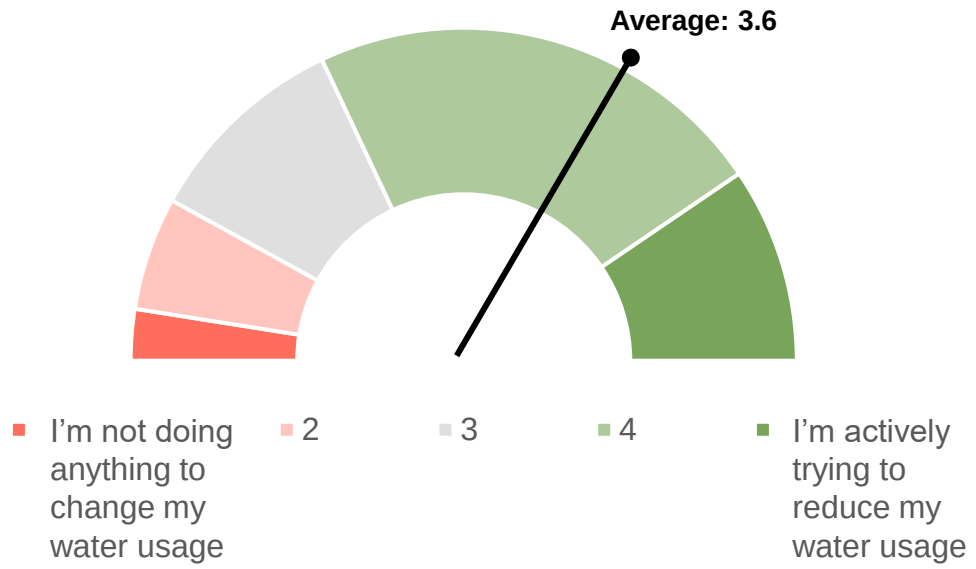
"I've not heard or read anything about there not being sufficient water to meet needs, so it's not something I would have thought about."

"Well I don't really know what the situation is but do hear every now and then that we could be struggling in years to come as the population grows."

02 Whilst many claim to be trying to lower their usage, this isn't due to a belief that Wales is at risk of a significant future water deficit – it is more about mindfulness towards wastage

Water usage
(Total Sample)

WHERE WOULD YOU PLACE YOURSELF ON THIS SCALE?



"We try our best to be mindful of waste, pollution, etc. to do our bit to help preserve the environment."

"We recycle, try and reduce electricity and water usage, i.e. not using lights when not needed, energy saving bulbs, limit the time with the radiator on."

B2. Thinking about your water usage, where would you place yourself on the below scale?
Base: Total sample (804)

02 That customers often don't recall recent water restrictions in Wales only serves to downplay any sense of there being a significant water deficit in future

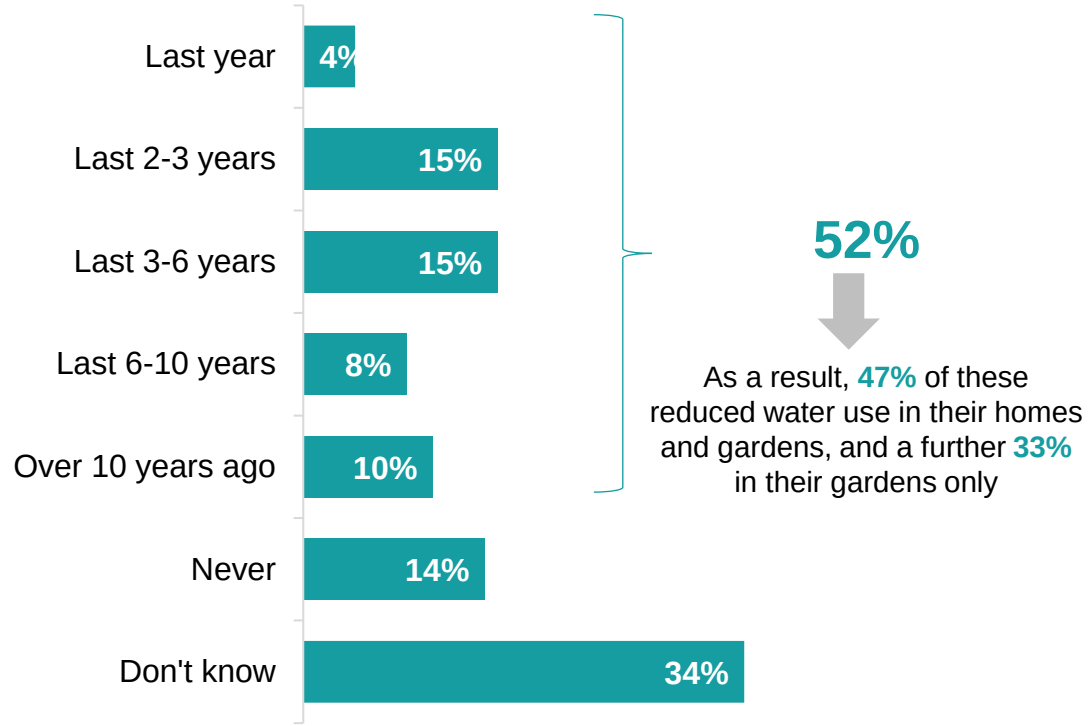
Hosepipe ban
(Total Sample)

The is very little recollection of water restrictions having been applied in Wales, beyond an occasional hosepipe ban, since the summer of 1976

"Hosepipe bans in the past had no effect on me at all, not really an inconvenience. But not all my neighbours abided by the ruling."

"I am old enough to remember the drought of 1976, consequently I am aware water restrictions can impact on family life. Thankfully I have not experienced anything like this since."

LAST TIME HEARD OF A HOSEPIPE BAN IN THEIR AREA…



B4. When was the last time you heard a hosepipe ban was being considered in your area? Base: Total sample (xxx)
B5. When you heard a hosepipe ban was being considered, how much did you change your water usage because of this, if at all? Base: Total sample (804); Those who remember a hosepipe ban (444)

02 Upon exposure to some of the detail on water shortfall in Wales, there is particular surprise that rainfall captured is only 3% and that two areas already have water deficit forecast

Online self-investigation

From a variety of online sources, customers quickly discover more about the impact of climate change and increasing frequency of drought periods in Wales – **for many this is new news**

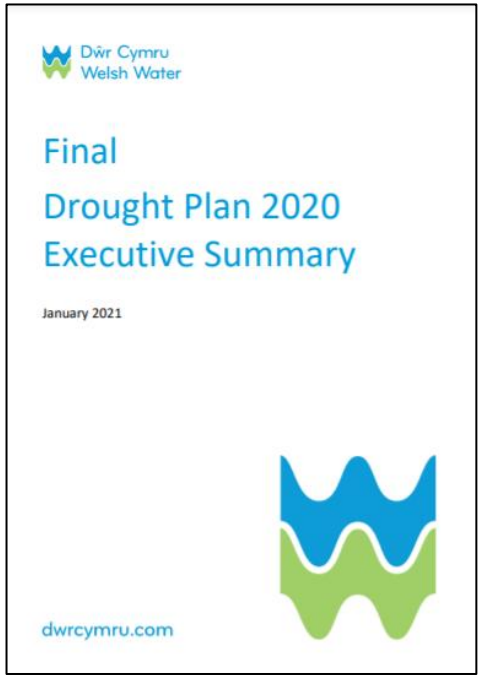
WRMP19 summary

Upon exposure to the WRMP19 summary, customers learn more about the specifics of shortfall and are surprised in particular by:

1. **97% of rainfall not harvested** is a shocking figure, particularly in comparison to some other regions
2. **Water deficit** for Tywyn and Pembrokeshire - though they welcome a **cost effective solution** for Tywn and Pembrokeshire via new abstraction point
3. **20% decrease in demand** sounds positive
4. DCWW making the **environment a high priority** but balanced against financial considerations
5. Minority find out about **NFP** status for the first time

The DCWW drought plan is seen as a comprehensive, considered, fair and reassuring document and gives customers confidence that they will not be without water

Perceptions of the DCWW drought plan



- ✓ Clear steps and processes
- ✓ Includes lots of communication to customers at each stage
- ✓ Targeting leakage is a high priority
- ✓ Sufficient notice given to customers
- ✓ Banning all non-essential use during severe drought
- ✓ Includes education to advise customers on what is essential use
- ✓ Builds on previous mistakes/learnings = transparent
- ✓ Feels very customer focused

- ? Unclear how it would be policed
- ? Would need to be some more customer-facing comms
- ? Roadshows don't feel as they have big enough reach

It should be noted that these are not customer reactions gathered 'in the moment' of drought conditions, during which responses may differ

"It seems to be a well thought out and strategic plan based on previous droughts and new ways of measuring supply vs demand. I would be happy with the restrictions if required."

"I find the measures sensible and reassuring. I would be prepared to accept all these measures as they are logical and common sense for the good of us all."

"I would be behind these strategies if they were required because they aid not only myself, but also everyone who lives in our area. If serious restrictions were in place then it would be selfish to go against the bans."

Customers claim they would accept drought restrictions for outdoor use, and in times of severe drought claim preference for water rationing over bill increases

General drought restrictions that customers claim they would accept

Limits on non-essential water use, defined as use for:

- Gardens
- Hot tubs and swimming pools
- Washing cars

Some also indicate they would be prepared to go further:

- reduced appliance usage e.g. dishwasher, washing machine
- small reduction in water pressure across the network

But vulnerable customers do express concern about the impact on their day-to-day needs

"I would say hosepipe bans, filling paddling pools etc. would be acceptable in the first instance in a time of drought."

Customer claimed preferences during times of severe drought

Most express preference for water rationing over bill increases:

- Feels like the easiest and fastest way to conserve water
- A temporary inconvenience (the assumption is that rationing would only be for a very short period of time – weeks not months)
- Accepting of this if absolutely necessary, providing sufficient notification is given
- Shift workers concerned about water being off

However, families are less keen on water rationing and worry about how they would cope

Paying to fix infrastructure feels like a very long term project and expensive for customers

- Particularly in the context of the cost of living crisis

"I think that by putting the bills up it would hit me hard. But I would be prepared to go with using water at certain times of day – I would just fill up bottles."

There is a widespread assumption that leakage is a major issue across the network due to the ageing infrastructure

Uninformed customer perceptions about water leakage

Generally thought to be a sizeable problem, and customers guess that anything between 5%-40% of water is being lost to leakage

As it is underground, the perception is much of the leakage goes unnoticed and thus accumulates - sometimes leading to flooding

Old infrastructure believed to be the root cause

Felt to be very wasteful of water that is drawn from the environment

IMPACT

Billing – widely believed to be a contributory factor to water bill increases over time

Shortfall – logic dictates that leakage must be a contributor to shortfall and it feels more addressable than climate change

Environment – seems likely to be having an unbalancing effect on eco systems

"I think leakage is a huge problem across the Welsh Water network from both mains burst pipes and domestic burst pipes."

"Leakage is definitely a problem and it will for sure hike up customer's bills, because the money has to come from somewhere."

"It is scary to think water may be wasted in leaks when water is becoming more and more scarce."

02 Some express surprise and shock at learning about the Economic Level of Leakage, which suggests there is an accepted (and perceived to be high) level of wastage

Views on the DCWW approach to tackling leakage

- **Economic Level of Leakage, and beyond**
- **Innovative detection technologies**
- **Home efficiency audits by plumbers and free repairs**
- **Increasing number of water meters**

- **E.L.L.** is shocking to customers conceptually, though they are reassured that DCWW is looking to make 15% reductions beyond the E.L.L.
- Overall, the combination of measures feels like a **strategy that shows commitment** from DCWW and is reassuring for customers to hear
- Drone and satellite technology feels **innovative** and is reassuring to hear
- Free repairs and home audits feels like **above and beyond** customer service
- **Meters** identifying leaks can be new (and interesting) benefit to customers

"I didn't realise that they just let some leaks go as it is cheaper than repairing them. How can this be right?"

"This [E.L.L.] just seems upsetting when you think about the countries that are desperate for water then we are letting it leak away because it's the cheaper option."

"I'm pleased to see they are committed to minimising leaks by 15%, and using new technology is a great idea as things like drones will give an angle not previously able to be seen."

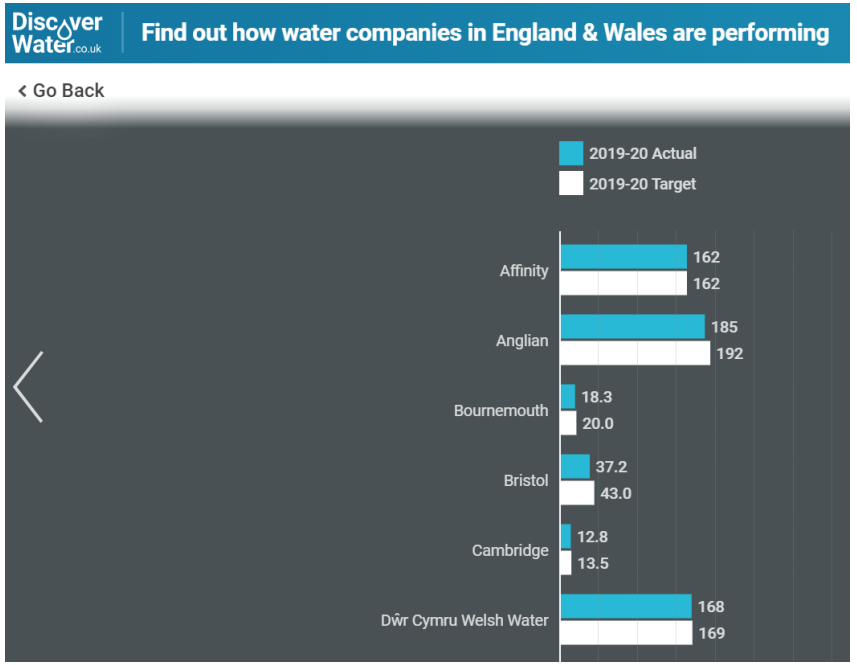
02 There are also some credibility issues with the wider industry leakage targets; these fuel perceptions the sector is not stretching itself enough

Customer thoughts on leakage statistics on Discover Water

When reviewing how water companies are performing against leakage targets on Discover Water, the fact that almost all are meeting or very close to meeting their targets makes customers wonder how credible the targets actually are

Nonetheless, results feel fairly positive for DCWW – on target and much less leakage than some other regions

Overall leakage numbers presented through this website though are fairly shocking – e.g. 1,182 Olympic swimming pools every day across England and Wales



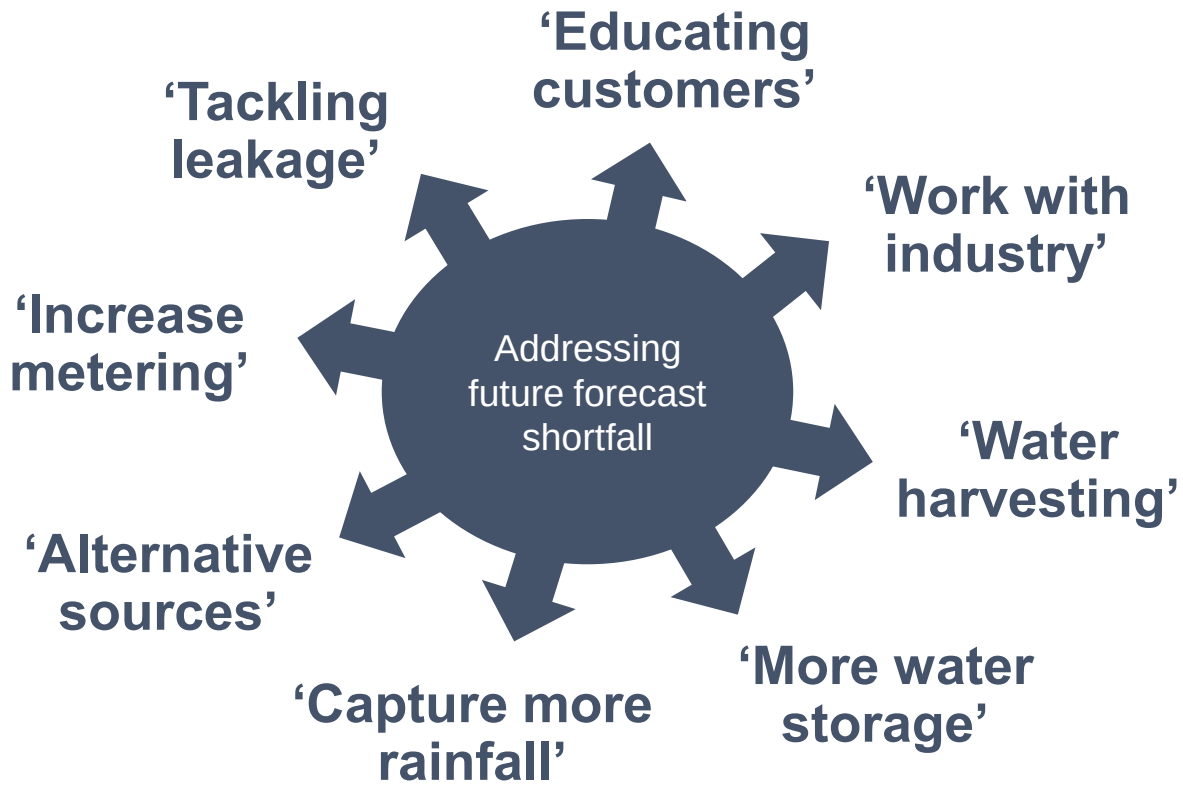
"Most of the companies are around their target. However, I'd have thought they would all be aiming for lower."

"I was pleased that DCWW was significantly better than other big suppliers… but the target is still a lot of wasted water."

"I'm amazed that companies are hitting their targets so consistently across the board. This makes me think that the targets aren't pushing the companies enough."

02 For addressing future shortfall, customers want DCWW to evaluate all options thoroughly, including both demand reduction and increase in supply

How do DCWW resolve any future forecast water shortfall? (un-costed)

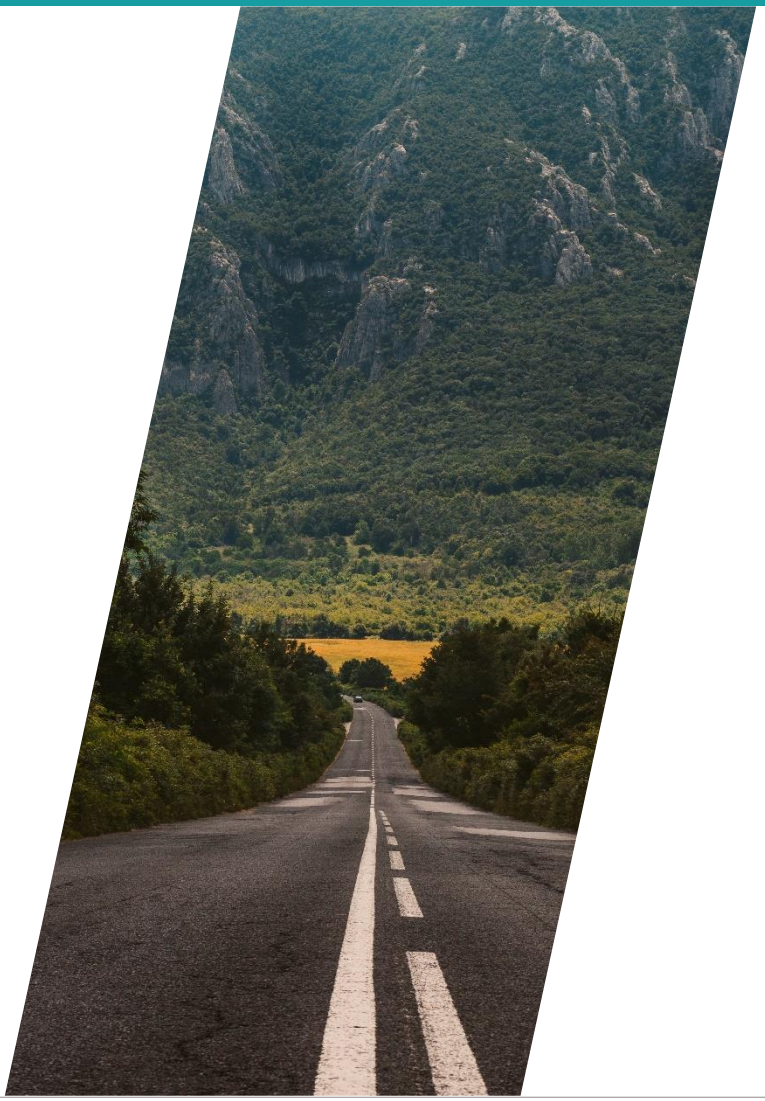


“Consider trying to make use of more than 3% of the rainfall. Is this something that would seriously impact the environment if you did so?”

“Educate customers how to use water responsibly through all year round adverts, rather than just in periods of drought.”

“Could a desalination plant be something that is cost effective if there are likely forecast shortfalls in forthcoming years?”

UNDERSTANDING WATER SHORTFALL – What does this mean for WRMP24?



1	Water shortfall is not recognised as a potential issue by many people in Wales – partly because there have been so few water restrictions in recent years, but also because there is a knowledge gap around the specifics of how climate change is affecting water supply.
2	Current in-home water reduction behaviour is born through a mindset of reducing waste (and sometimes reducing bills) rather than necessarily understanding the potential for future shortfall – but it is still encouraging that customers are often mindful of how they use water within the home.
3	Customers think leakage is a big contributor to potential shortfall and expect DCWW to show leadership on tackling leakage across the network. This feels like part of a 'social contract' in which DCWW leads on leakage, and in turn customers work to reduce their consumption.
4	Whilst customers do not want their water use restricted, they acknowledge their civic duty/responsibility in times of water shortage and claim they would accept non-essential usage restrictions, and in times of severe drought would even accept water rationing.

Demand-side response options

Demand-side measures shown in quantitative research

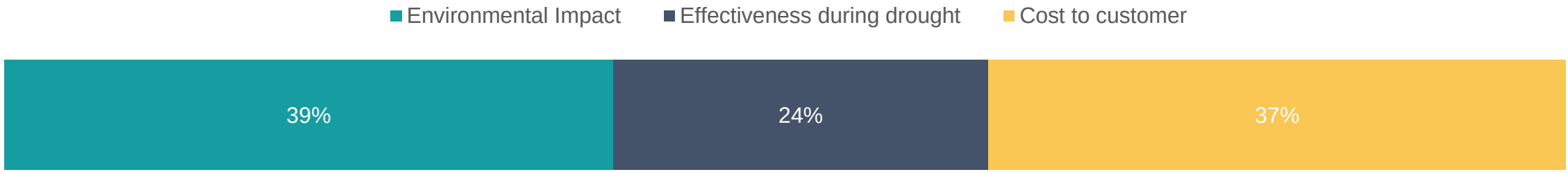
	Environmental impact	Effectiveness during drought	Cost to customer
Working with customers to raise awareness of how to reduce water usage	Good	Poor	Good
Working with policy makers to help make homes more water efficient	Good	Poor	Medium
Reducing water leaks inside customer homes	Good	Medium	Poor
Reducing water leaks in the network (outside customer homes)	Good	Medium	Poor
Increasing the number of homes which are metered	Medium	Medium	Poor
More frequent restrictions on customer use of water e.g. hosepipe bans, no filling up of swimming pools	Good	Poor	Good

03 Regression analysis shows that environmental impact and cost of a solution influences decision making equally, with the former more important for younger customers

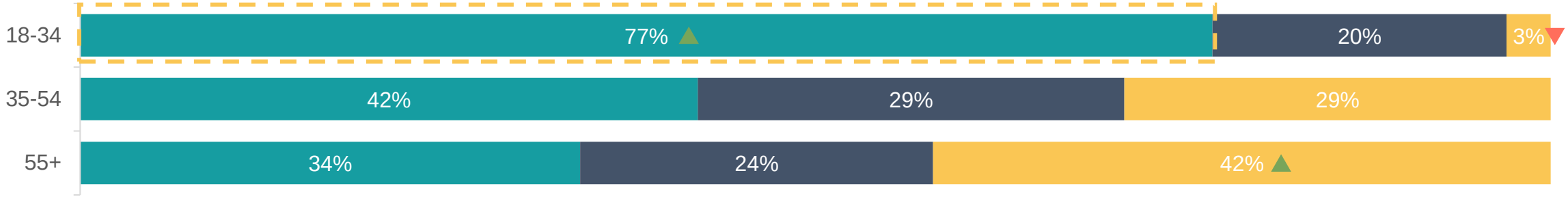
Impact of the three categories in decision making
(Total Sample)

Tested at 95% significance vs. other age groups

Importance is shown as proportion of the decision making – the higher the %, the more impactful it is in decision making



(By Age)



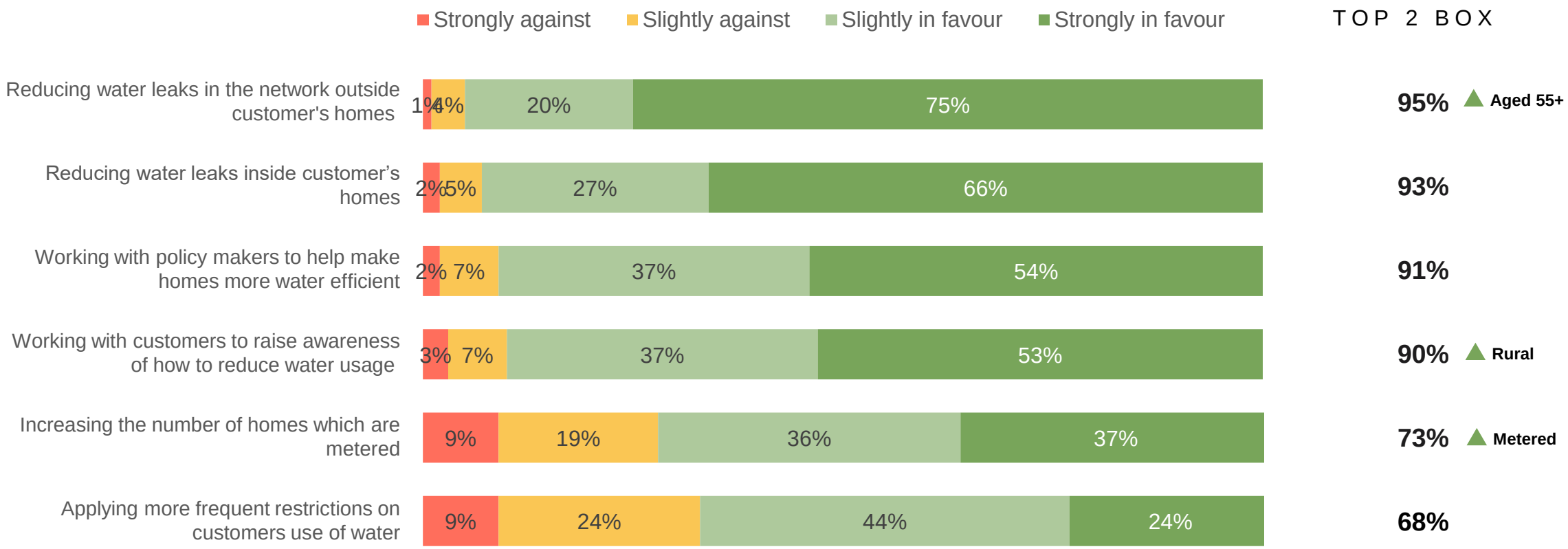
Results hold for both supply and demand side solutions.

Relish Linear Regression Analysis:
Base: Total sample (804)

03 With its positive environmental impact, tackling leakage achieves the strongest support from customers – highlighting how they want DCWW to lead on reducing wastage

Attitude to demand-side solutions
(Total sample)

Tested at 95% significance

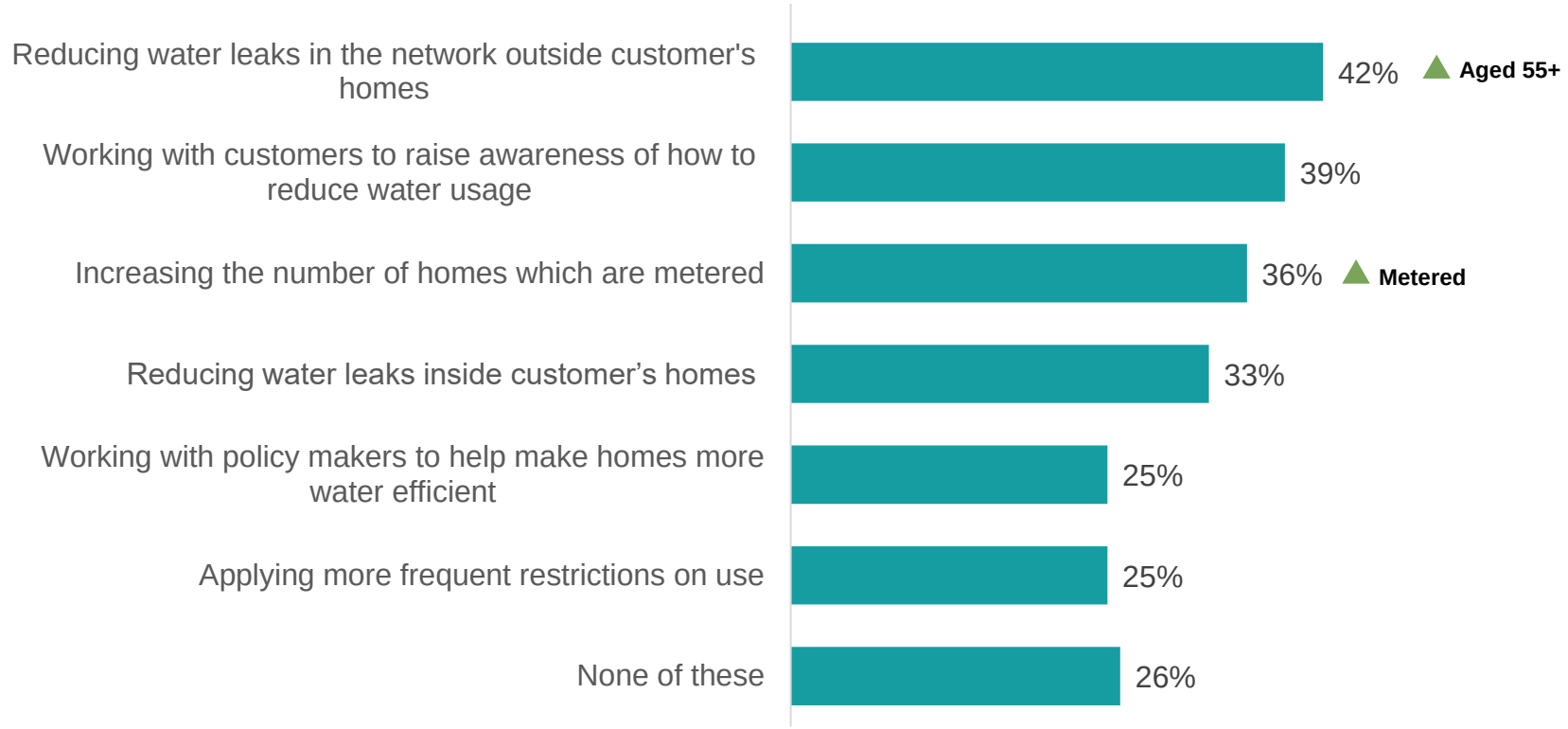


C1. Please tell us whether you are in favour or against Welsh Water doing this as a way to help save water.
Base: Total sample (804)

03 Leaks in the network is also the easiest measure for people to have a clear opinion on, but even then, by less than half – showing an opportunity for further education

Ability to offer a POV on demand-side solutions
(Total Sample)

Tested at 95% significance

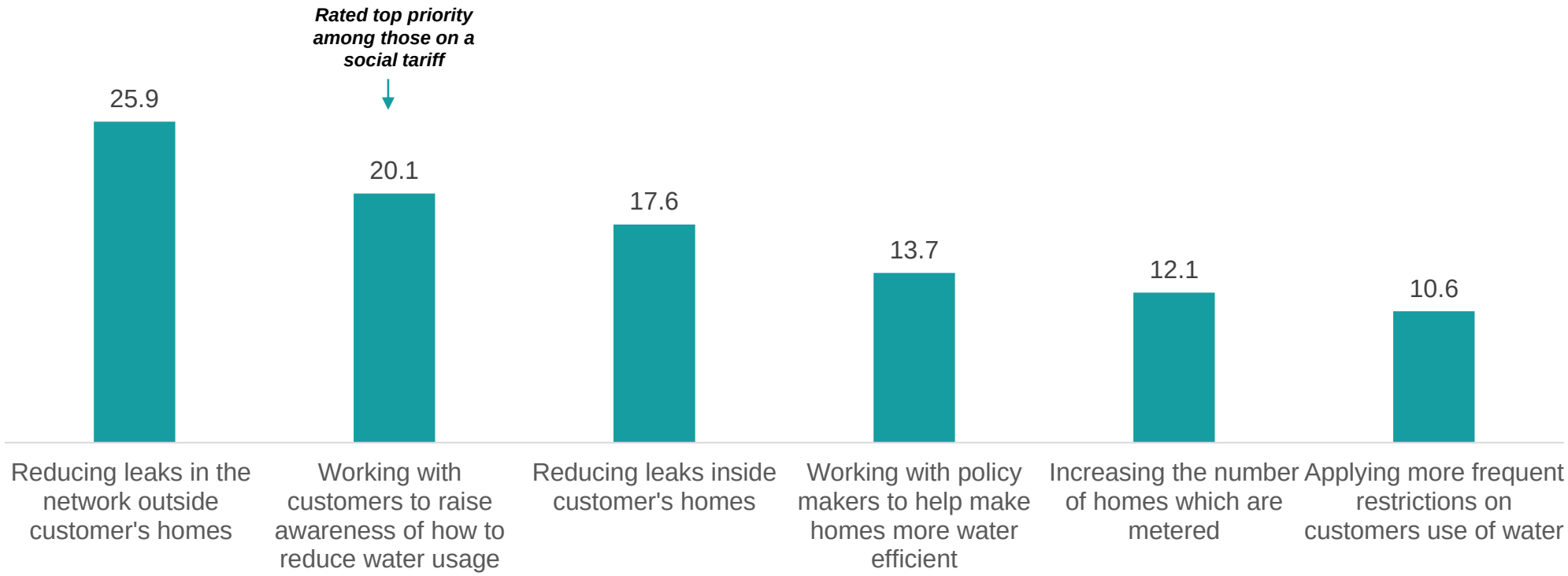


C3. And which of these options, that you've just seen, do you feel you can offer a clear point of view on?
Base: Total sample (804)

03 A similar hierarchy holds when ranking the measures for future investment: Tackling network leakage and raising awareness of customer's use are prioritised

Points assigned to each demand-side solution, out of 100

(Total Sample)

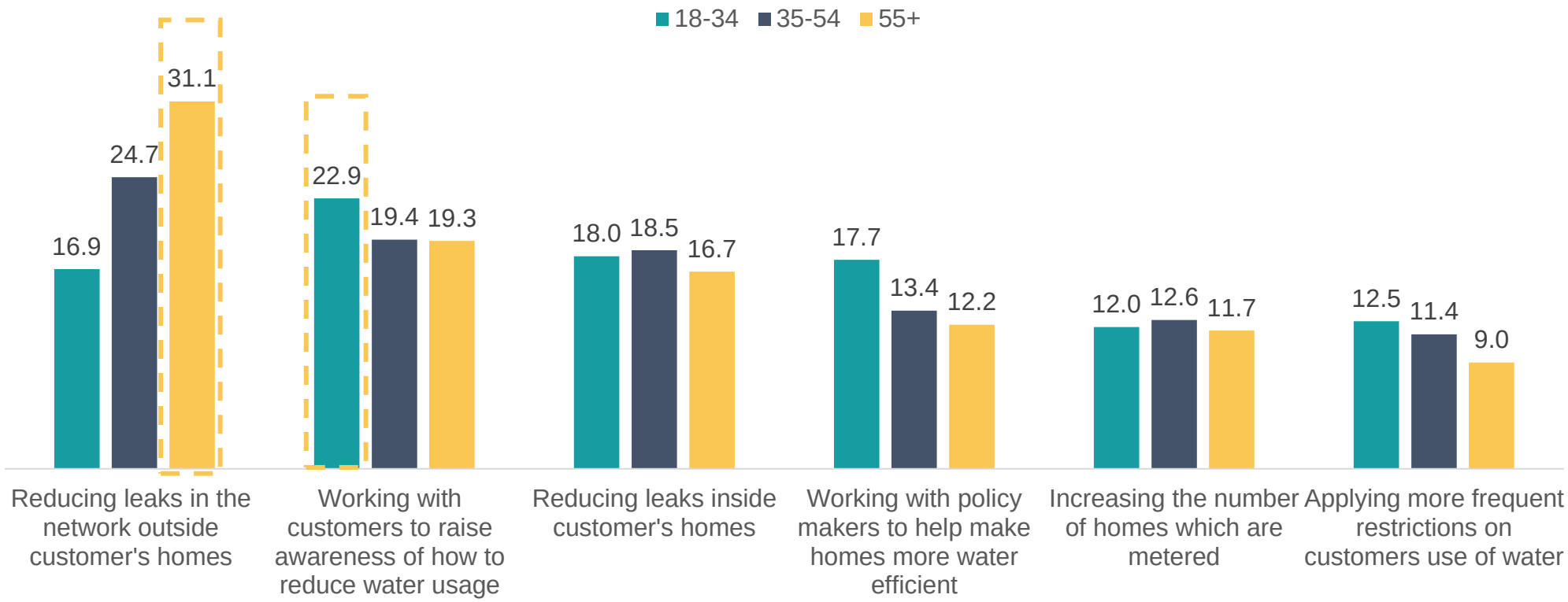


C4. Please imagine you have 100 "points" to invest in these different ideas to reduce the amount of water that customers use. How much would you give to each of these ideas?
Base: Total sample (804)

03 Priorities differ slightly by age, with older customers prioritising leakage reduction, and younger customers preferring a focus on individual usage

Points assigned to each demand-side solution, out of 100

(Total Sample by age)



C4. Please imagine you have 100 "points" to invest in these different ideas to reduce the amount of water that customers use. How much would you give to each of these ideas?
Base: 18-34 (173), 35-54 (252), 55+ (379)

03 On tackling leakage, customers are supportive of DCWW fixing private leakage on the customer supply pipe (that is technically the responsibility of the home owner)

Views on DCWW fixing private leakage

For the most part, this is seen as a win-win situation

- Particularly helpful for those struggling financially who may otherwise ignore leaks
- Consensus that this approach would mean more domestic leaks would be tackled
- Removes stress for the customer as DCWW seen as a reputable company, ensuring consistent quality of repairs

There is a minority who are less keen on paying for others' leakage repairs via their bills…

- Some suggest means testing this work so only those most in need have it fixed for free

"Perhaps households could be means tested as I'm sure many households could afford to pay for leakage."

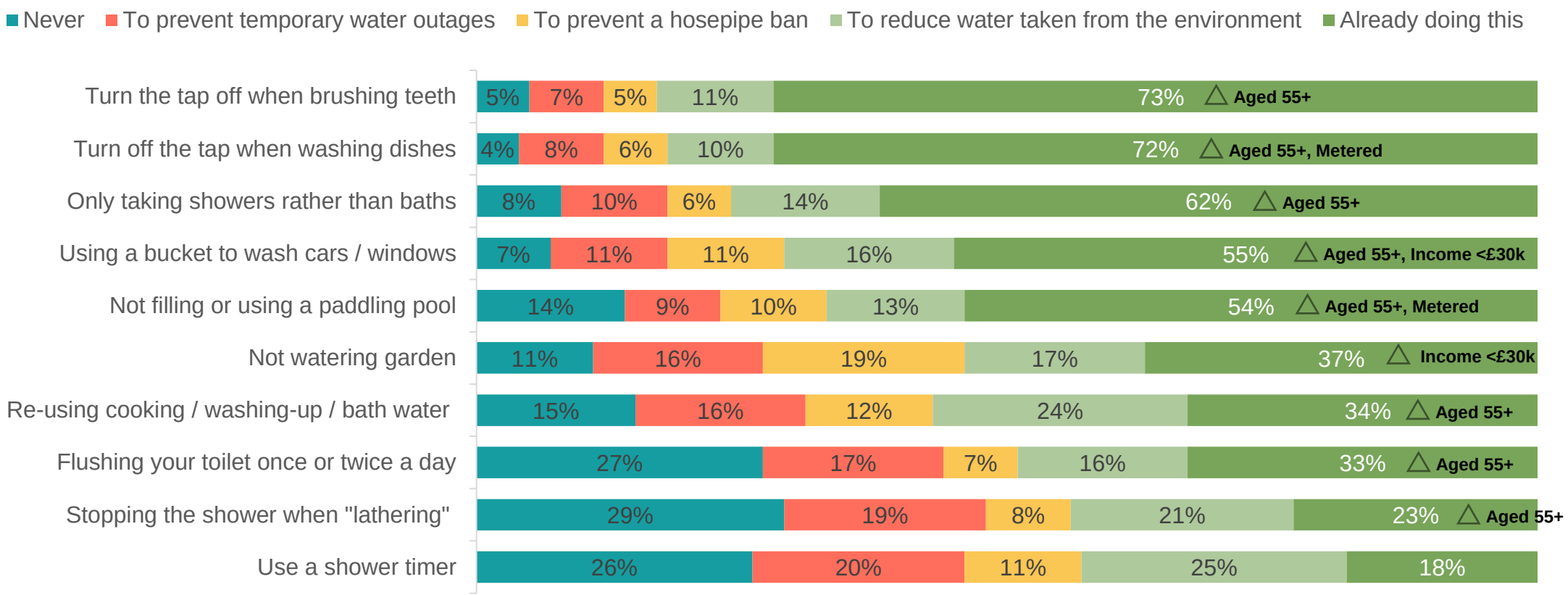
"I think this would be a good idea…I would rather trust my water board to make the repairs to the desired, safe standard."

"I do think pipes being looked at by a professional company like DCWW would be more beneficial to reducing leakages."

03 On raising awareness of water use at home, many believe they are already efficient – though there is scope to encourage more behaviour change…

Willingness to save water
(Total sample)

Tested at 95% significance

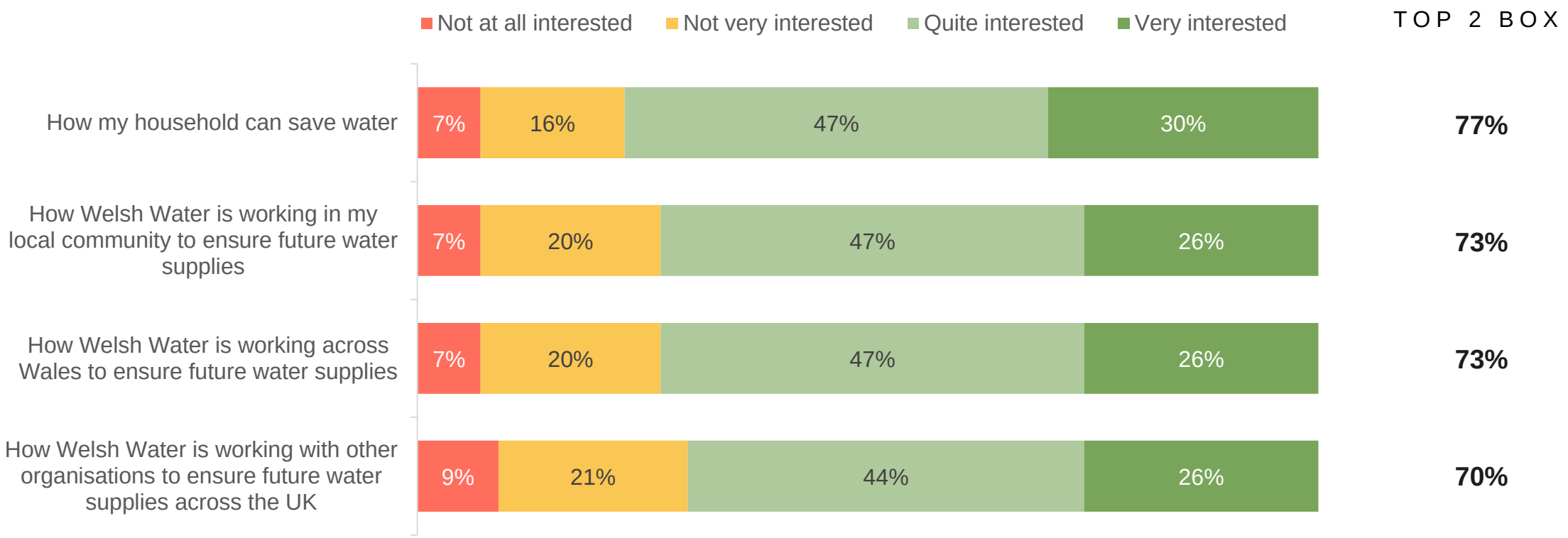


B7. When would you be willing to do the following, if at all?
Base: Total sample (804)

03 ….and this appetite for change is exemplified by interest in finding out more from DCWW about saving water at a household, community, national and UK-wide level

Interest in information from Welsh Water
(Total sample)

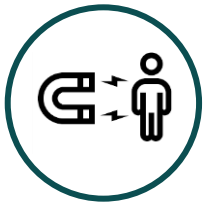
No significant differences by sub-group



B8. How interested are you in hearing about the following type of information from Welsh Water?"
Base: Total sample (804)

In seeking to achieve behaviour change on a mass scale, we must be mindful of how we address our customers

A framework for behavioural change messaging and support:



engage, keep in touch, keep them informed, start a dialogue, run campaigns to highlight bigger issues

explain why they need to act, help them understand the broader water impact, and remember that giving them a better understanding of ‘why’ will make them more receptive to the ‘how’

assist them in how they can help and give them the tools to help change their water behaviours, leverage their latent desire - but do be mindful that jumping straight to the ‘how’ without any of the ‘why’ can come across as ‘preachy’

Customers are impressed when they see what DCWW can offer as part of ASSIST – but they want to hear more about this directly from DCWW

Free water saving devices - discount vouchers for money off water efficient white goods - appliance exchange programmes - subsidised adaption of toilet cisterns to dual/variable flush - subsidised repairs of leaking toilets - subsidised grey-water re-use systems (to re-use bath or sink water) - free household water use assessment - water efficiency measures for businesses too

Very positive response to the DCWW demand management support on offer:

- ✓ Helping customers to help themselves rather than forcing change upon them
- ✓ All measures feel relatively easy to do within current lifestyles
- ✓ Welcome financial support for efficient white goods makes this feel achievable
- ✓ Conceptually, recycling water within the home makes a lot of sense
- ✓ All measures seen as making water saving more of a priority at home

Only downside for a small minority is caution over the potential size of a bill increase to subsidise these measures (during difficult economic times)

"Really good ideas. I think most households would be happy to reduce their water usage and these are easily implemented without too much hassle for the customer."

"I think they are all wonderful ideas, so much so that I don't know why it has taken until now to think of them, especially recycling bath water."

"It's exceptionally beneficial to the customer and with DCWW working with the customer to make these changes it takes the stress out of it."

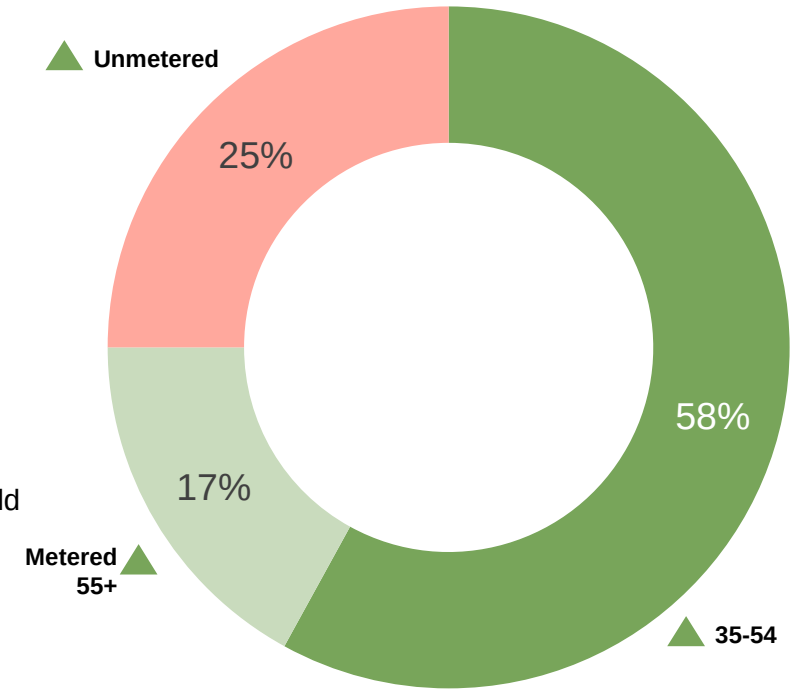
03 On metering, we know from the separate metering research that there is a lot of support for metering roll-out, provided it is optional

Metering attitudes
(Total Sample)

Please note that these results are from the metering research conducted for DCWW in October 2021

Tested at 95% significance

- Water companies should encourage more metering, but not make it compulsory
- Water companies should make meters compulsory
- Getting a meter should be up to the household



"Although I am a big fan of water meters and can certainly see the long term benefits, I also think it is right that people are given a choice and should not be forced onto a meter if they really do not want to be. However, they should be encouraged to do so wherever possible."

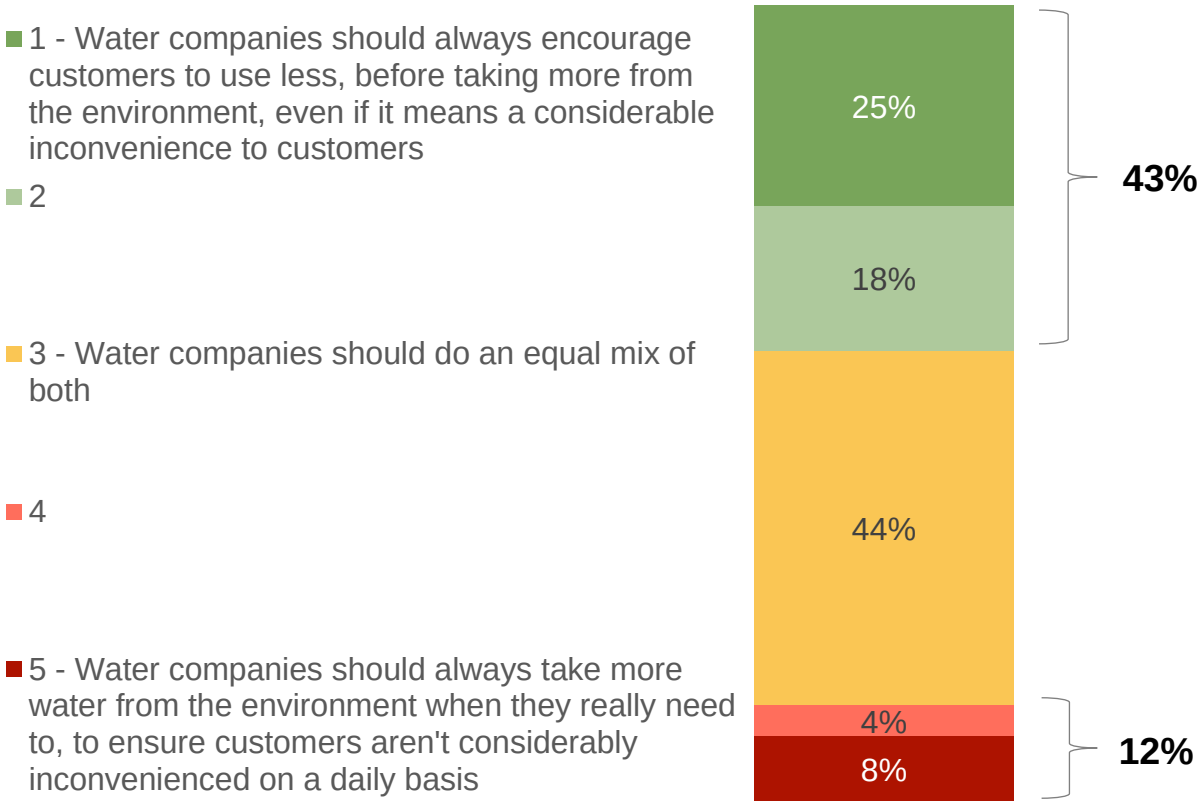
- Optional metering removes the barrier of penalising certain types of household
- Optional feels appropriate to current financial climate and affordability fears
- Important to customers to retain element of control when it comes to budgeting
- Clear that compulsory metering would anger some unmetered customers and cause resentment

D14 Which of these statements most closely aligns with your point of view?
Base: Total sample (807)

Customers believe that DCWW needs to encourage behaviour change and apply necessary restrictions before taking more water from the environment

Attitude to taking water from environment
(Total sample)

No significant differences by sub-group



In times of drought, customers want DCWW to start by pushing for behaviour change

- Impactful info campaigns on simple ways to reduce consumption in the home

Restrictions customers would accept before DCWW goes to the environment for more water focus on non-essential usage (thus predominantly outdoor)

- Though some would also be ok with reduced pressure across the network (as seen in metering research)

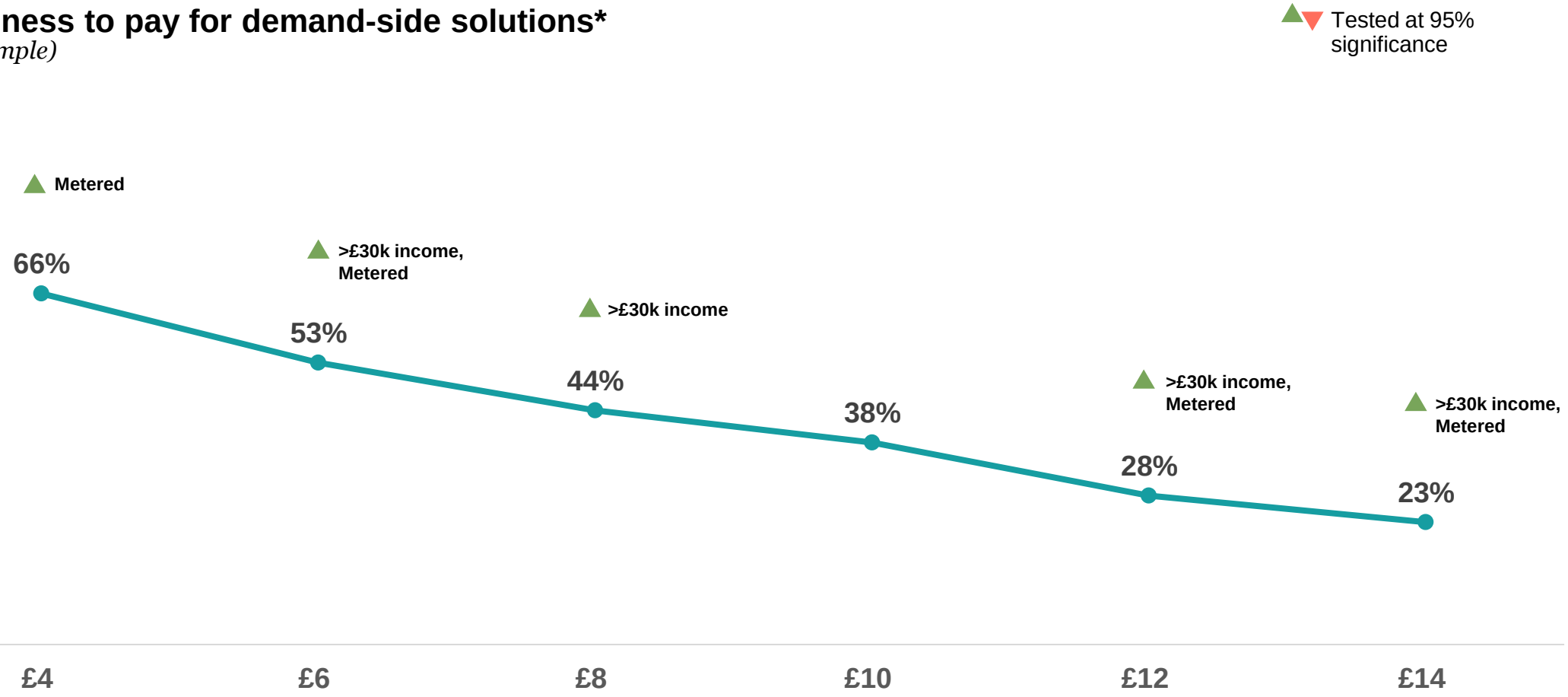
Taking more from the environment in times of drought is felt to exacerbate the long-term problem

But ultimately, some concede that we will still need access to water from the environment once all reasonable measures have been pursued – thus it is a question of a balanced approach

B6. In times of drought, there are different ways in which water companies can ensure there is enough water to go round. One option is to reduce demand on water supplies. This might mean identifying and solving leaks, and asking customers to use less water - even if it's inconvenient for customers to do so. Another option is to take more water from the environment, which might mean customers don't need to be inconvenienced, but could have a negative environmental impact. Which of these statements most closely matches your point of view? Base: Total sample (804)

03 There is customer support for paying a limited amount on their bills to contribute to an enhanced demand-side response from DCWW

Willingness to pay for demand-side solutions*
(Total Sample)



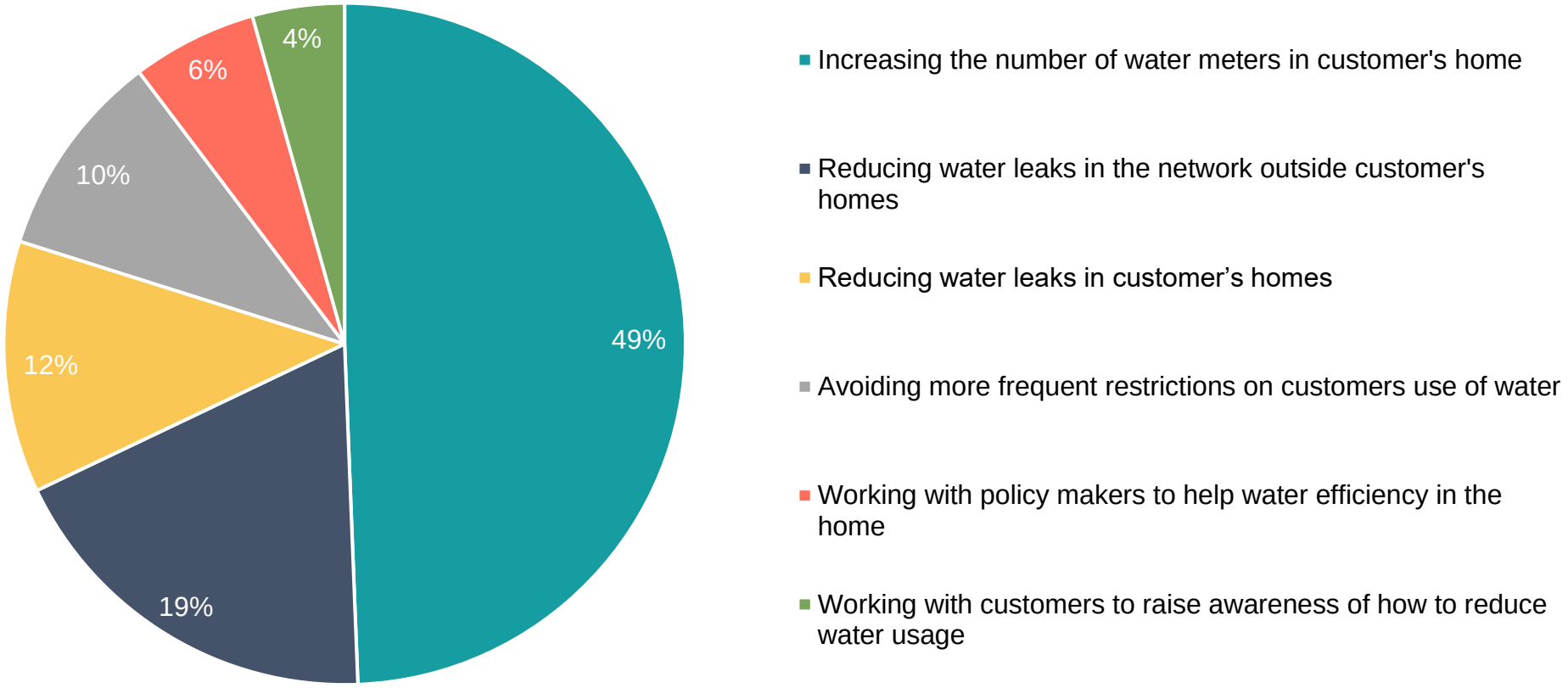
**All solutions that customers allocated at least one point to (out of their 100 points to allocate) were shown at this question*

C5. To invest in these ideas, Welsh Water might need to increase water bills. Would you be willing to pay an extra [Pull through price point] on top of your current yearly water bill to enable Welsh Water to invest in these ideas?
Base: Total sample (804)

03 Increasing the number of water meters is the solution most likely to drive willingness to pay, followed by reducing leaks – both things where investment is more tangible

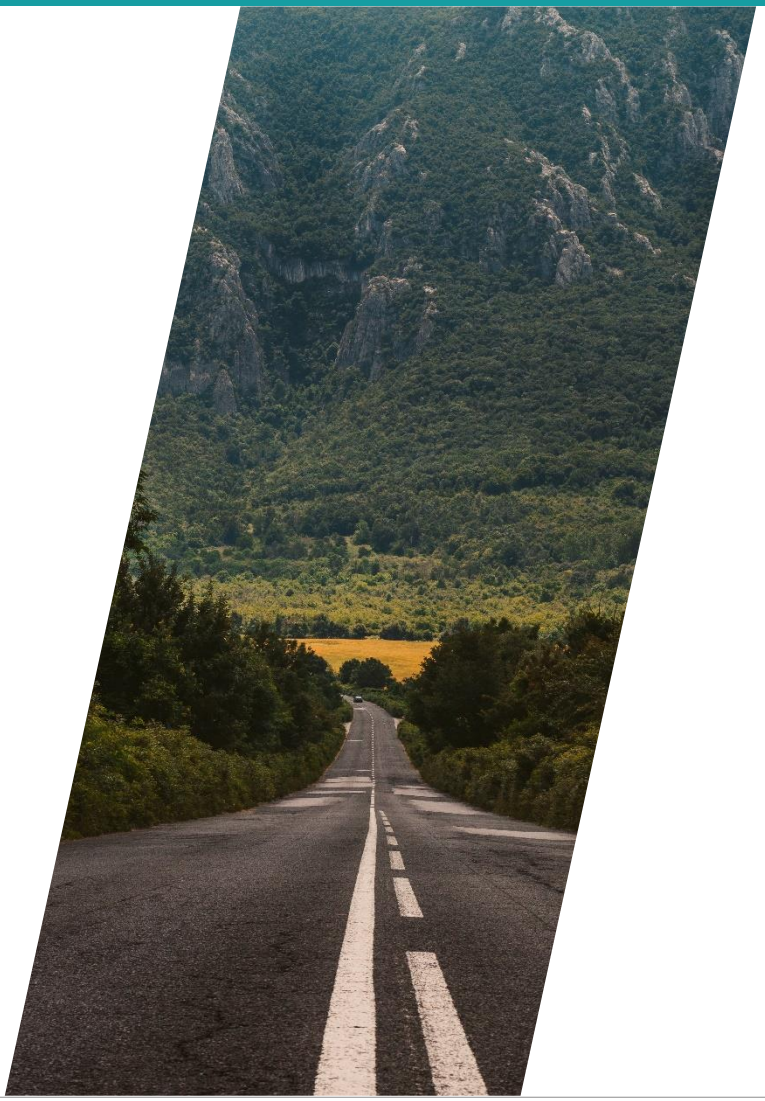
Driving willingness to pay: Demand-side solutions

(Total Sample)



C5 To invest in these ideas, Welsh Water might need to increase water bills. Would you be willing to pay an extra [Pull through price point] on top of your current yearly water bill to enable Welsh Water to invest in these ideas?
C4. Please imagine you have 100 "points" to invest in these different ideas to reduce the amount of water that customers use. How much would you give to each of these ideas?
Base: Total sample (804)

DEMAND-SIDE RESPONSE – What does this mean for WRMP24?



1	Customer prioritisation reflects the idea of a ‘social contract’ – first they want network leakage addressed by DCWW, followed by DCWW working with them to help them reduce consumption (via campaigns as well as access to free/affordable devices/appliances). The latter is especially important to younger customers.
2	Addressing domestic leakage is also important, and customers express support and appreciation for DCWW helping them directly by fixing private leakage.
3	Increasing meter roll-out is seen as part of the solution – and customers acknowledge they will need to pay extra to support this – although customers are very clear meters must remain optional.
4	Customers (especially younger groups) care about the environment, and when they understand the environmental impact on water as a resource during drought conditions, they are accepting of non-essential usage restrictions before DCWW takes more water from the environment.
5	Customers accept that DCWW increasing the demand-side response will need to be reflected in their water bills.

Supply-side response options

Supply-side measures shown in quantitative research

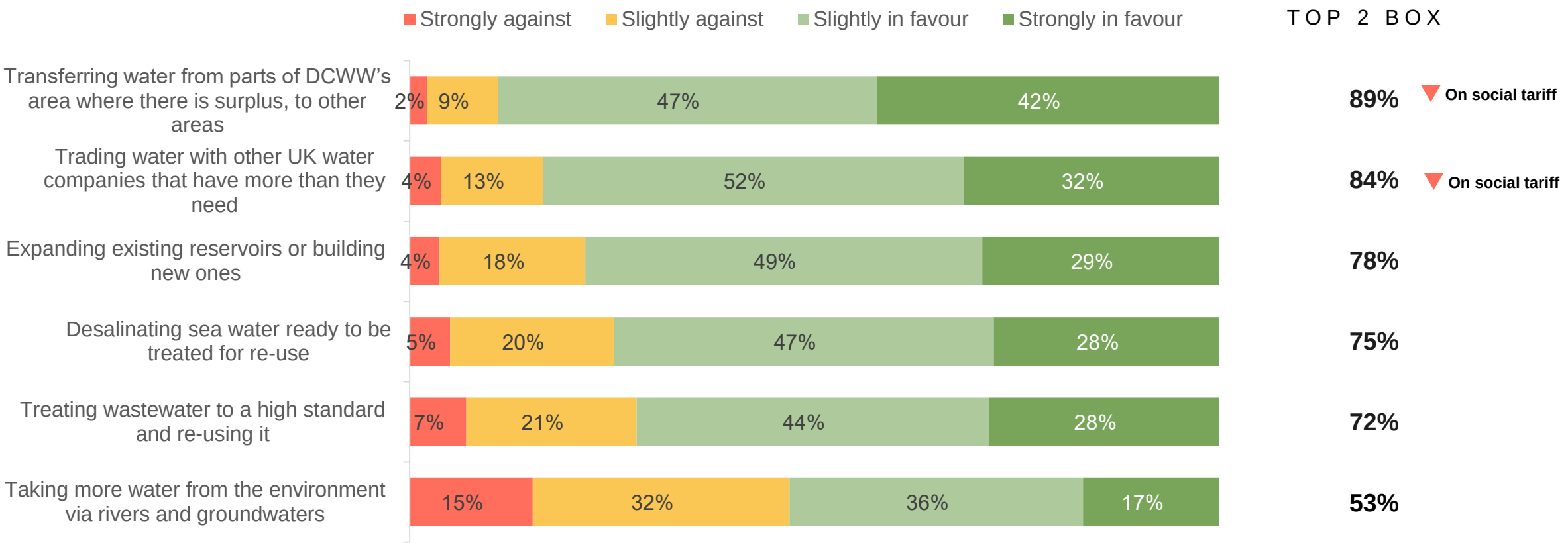
	Environmental impact	Effectiveness during drought	Cost to customer
Expanding existing reservoirs or building new ones	Medium	Good	Poor
Taking more water from the environment via rivers and groundwaters	Poor	Good	Medium
Treating wastewater to a high standard and re-using it in customers' homes	Medium	Good	Medium
Transferring water from parts of Welsh Water's operating area where there is surplus water, to parts where more is needed	Medium	Good	Medium
Trading water with other water companies in the UK that might have more water than they need	Medium	Good	Medium
Desalinating sea water ready to be treated for use in customers' homes	Poor	Good	Poor

Please note that desalination was only covered in the quantitative survey

Customers strongly support transferring water to where it is needed most within Wales, but are far less supportive of taking more water from the environment than necessary

Attitude to supply-side solutions
(Total sample)

Tested at 95% significance

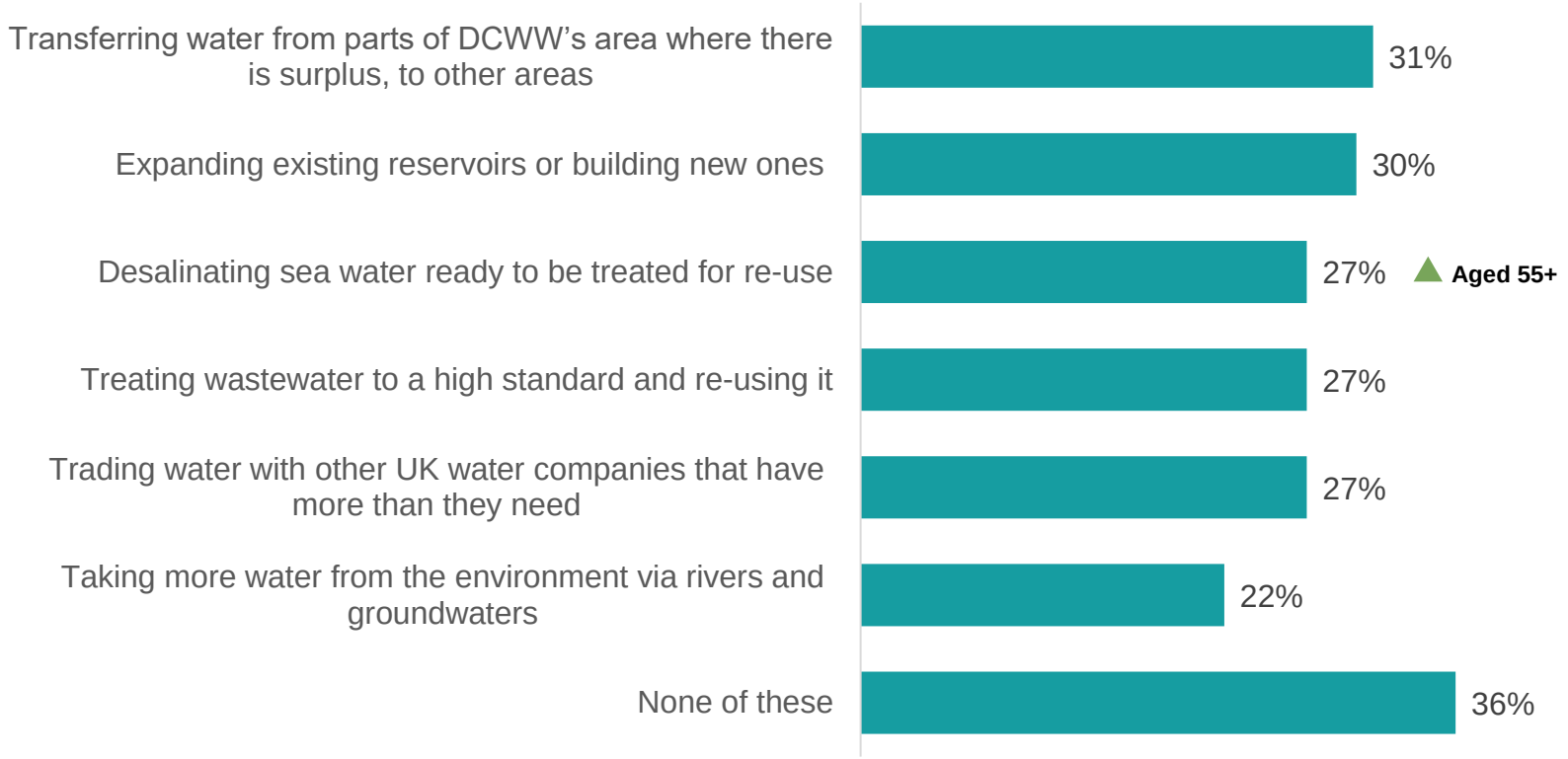


D1. Please tell us whether you are in favour or against Welsh Water doing this as a way to help save water.
Base: Total sample (804)

04 Customers feel most able to give a view on water transfer, but less so taking extra from the environment, which is a very complex topic

Ability to offer a POV on supply-side solutions
(Total Sample)

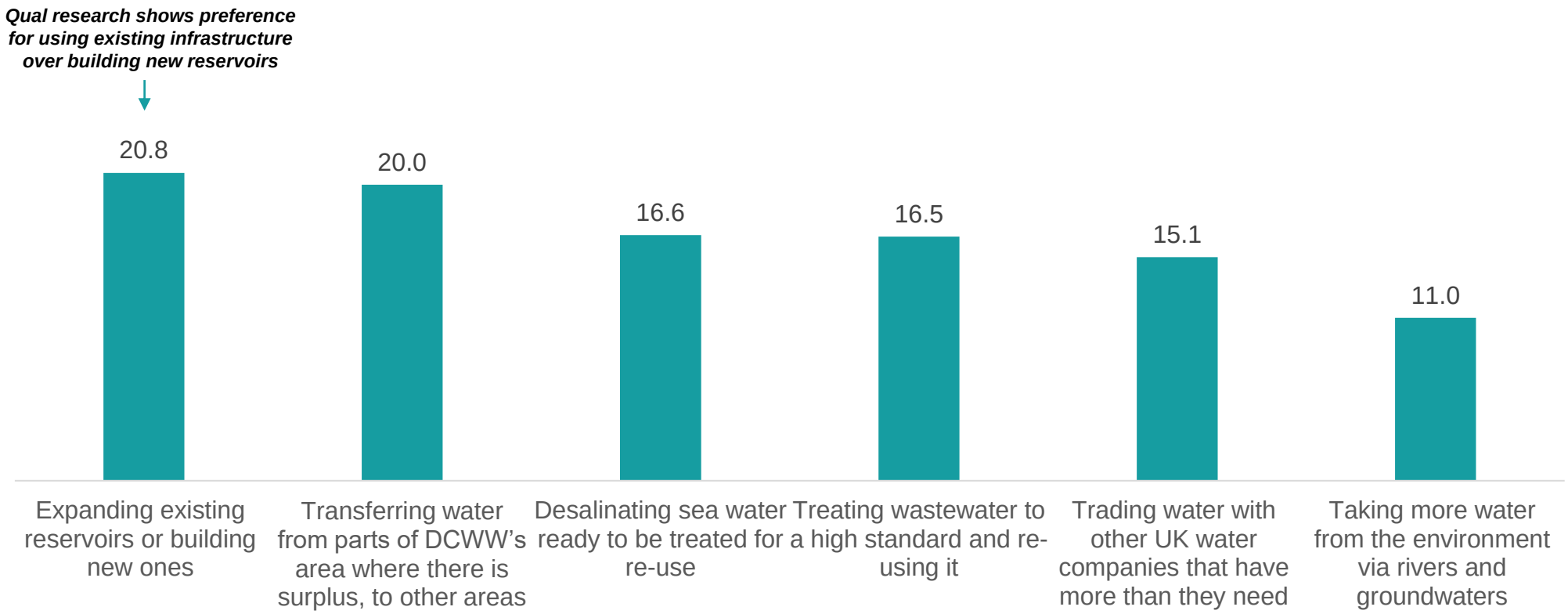
Tested at 95% significance



D3. And which of these options, that you've just seen, do you feel you can offer a clear point of view on?
Base: Total sample (804)

04 When ranking the supply-side measures for investment, increasing reservoir storage and water transfers are seen as the most important priorities

Points assigned to each supply-side solution, out of 100
(Total Sample)



D4. Please imagine you have 100 "points" to invest in these different ideas to reduce the amount of water that customers use. How much would you give to each of these ideas?
Base: Total sample (804)

Increasing water storage is viewed as a direct solution to the problem of potential future shortfall, though this is without understanding the full cost implications

2 options for DCWW increasing use of reservoirs to store water – 1) expanding existing reservoir, 2) re-opening an unused reservoir

Benefits

- Re-opening disused feels **less environmentally harmful**
- Any increase in storage capacity is welcome to **build up reserves** for drought periods
- Feels like **making the most of existing resource** rather than look for new supply sources

"I do support them creating more water storage if necessary to meet demand. Obviously there are many things to consider such as the environmental and economic impact on the planned site."

Drawbacks

- Even re-opening old reservoirs could **harm the environment**
- Potential **negative impact on communities** near the reservoirs
- Some wouldn't want this used to then **trade water** from these reservoirs

"I do support them doing this, but not for water trading."

Most agree that water trading makes financial sense for DCWW when there is a surplus in Wales, though the minority opposition voices have strongly held opinions

Trading water outside of Wales with other water companies by selling spare water – only when it would not reduce the level of service to current customers or damage the environment

Benefits

- More **rain** in Wales means potential surplus to trade
- Would benefit Welsh customers by **reducing bills** or **improving infrastructure**
- Most prefer **future proofing the infrastructure** over reducing bills
- Sharing when there is surplus makes **logical sense** and feels **morally right**
- Helping England's supply and Wales water future = **win-win**

"If there is surplus in the system and another water company is struggling I don't see any reason why there should not be a trade. I would be happy for the financial gain to be used on the network or a bill reduction."

Drawbacks

- If **potential future shortfall** in Wales, a minority does not support selling current surplus – consensus amongst this minority is to keep it for future use for the people of Wales
- Water trading increases **carbon footprint**

"If we (Wales) are going to be short of water in the long run, why sell what we have? Wouldn't it be better to store what we have for the future?"

Recycling treated wastewater is seen as a positive move towards a more sustainable water future by making more out of existing resources

Treating wastewater to a high standard so it is not harmful to the environment, before releasing it into a river upstream of a water treatment works, and then indirectly entering the public water supply

Benefits

- A **sustainable** approach
- Fits with other **recycling habits/mindset**
- **Making more** of what we already have
- (Mis)perception that this is **already widely done** in UK
- **Putting water back** into the river seen as a positive
- Feels more **environmentally friendly** than harmful

"I think it's imperative that DCWW recycles treated wastewater. Please DO!!"

Drawbacks

- Little bit of '**yuck**' factor
- Some unsure about whether it feels right for **drinking water** – would need further reassurance
- Assume lots of **chemicals** involved
- Affecting **eco system of river** when put treated wastewater in

"I may feel slightly differently with regards to drinking water as just the typical 'yuck' factor but there will certainly be many uses that I don't think people would have any argument with."

04 Although taking more water from rivers/groundwater can be seen as acceptable, it is almost never preferable, and customers want reassurance about environmental harm

New river or groundwater abstraction via other sources of water where there is water available for additional supplies, or reinstatement of unused surface/ground water abstractions

Benefits

- A **ready resource** to address a fundamental human need
- **Making more** of existing resources
- Potentially more **cost effective** than other measures

"I would support them doing this if it was necessary, but I feel this should be a last resort option as it has the largest potential environmental and ecosystem impact."

Drawbacks

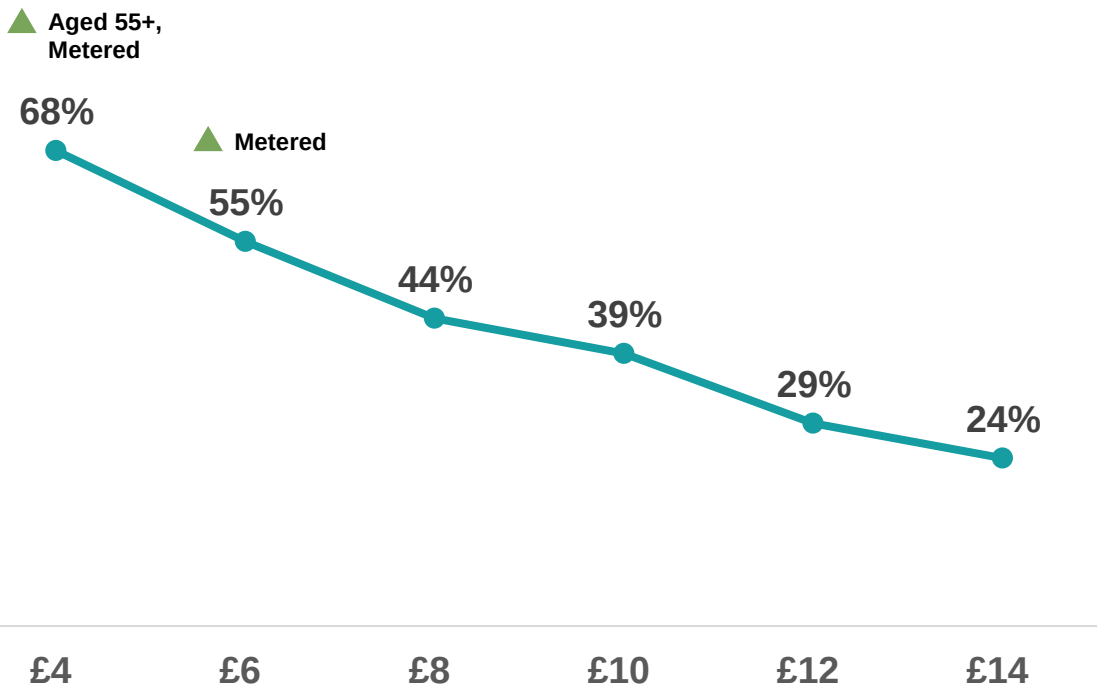
- Concerns about the **environmental impact**
- Need a lot of **reassurance** e.g. from NRW, that there will be no environmental harm
- **Want to see more done to capture rainfall and store water** before tapping into these sources

"It's not ideal that we should be taking even more water from rivers or the groundwater, but with increasingly higher water demand we really have no choice and I have to agree with it."

04 Customers indicate some conditional support for paying a little more on their water bill to fund supply-side measures

Willingness to pay for supply-side solutions*
(Total Sample)

Tested at 95% significance



Online community response indicates that whilst many support the funding of these measures through customer billing, this support is often contingent on…

- …the increase being small
- …DCWW playing it's part by tackling network leakage
- …DCWW pushing industrial users to reduce consumption too

And there are some who reject paying more on the basis of the current economic climate and concerns about the increasing cost of living

"All bills seem to rise year on year anyway, but if it was to ensure the availability of sustainable water now and into the future, I would be ok with that."

"It would depend on what the rise would be as people are quite stretched financially already. I feel that DCWW should be looking elsewhere to make up for any deficits."

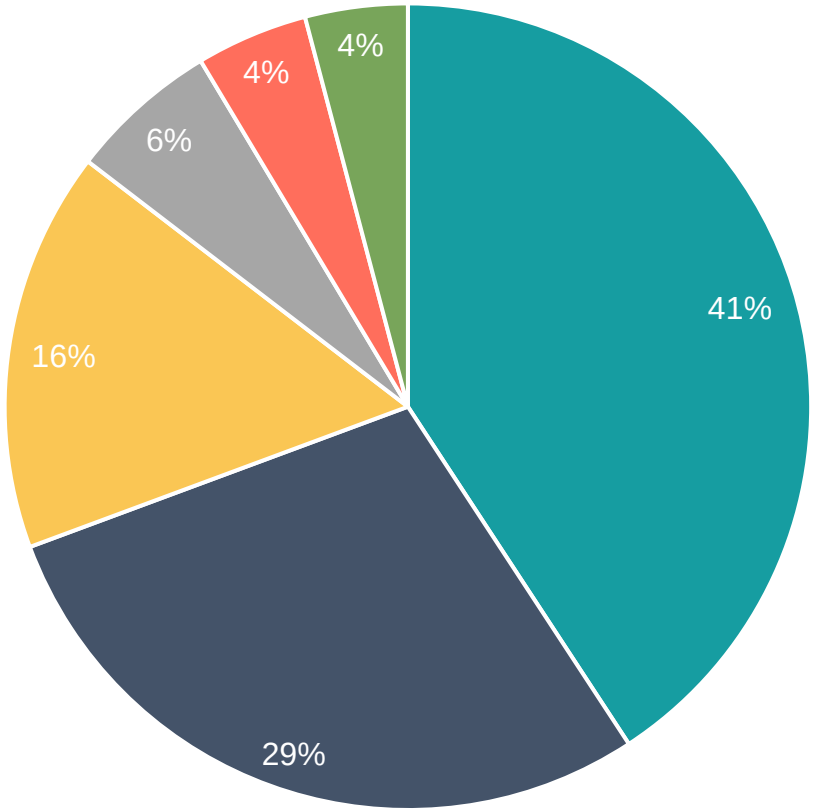
**All solutions that customers allocated at least one point to (out of their 100 points to allocate) were shown at this question*

D5. To invest in these ideas, Welsh Water might need to increase water bills. Would you be willing to pay an extra [Pull through price point] on top of your current yearly water bill to enable Welsh Water to invest in these ideas?
Base: Total sample (804)

Water treatment and trading are the most likely supply-side solutions to drive willingness to pay, where this investment required is more obvious

Driving willingness to pay: Supply-side solutions

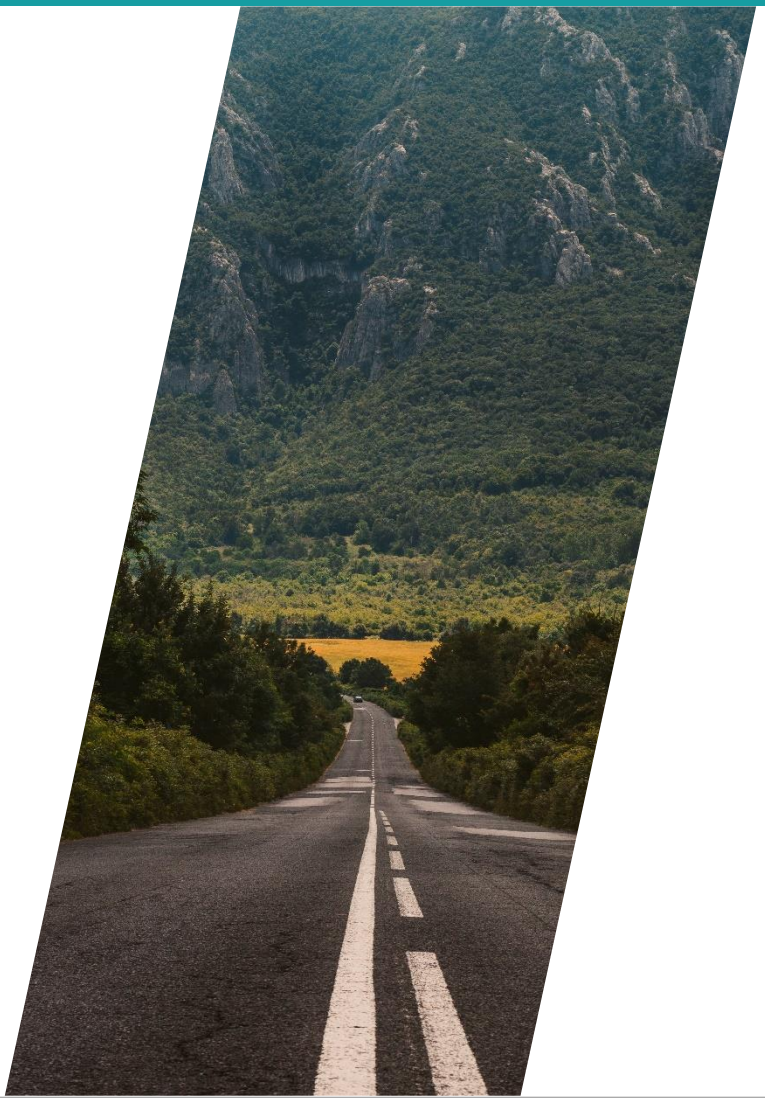
(Total Sample)



- Treating wastewater to a high standard and re-using it in customers' homes
- Trading water with other water companies in the UK that might have more water than they need
- Taking more water from the environment via rivers and groundwaters
- Transferring water from parts of Welsh Water's operating area where there is surplus water, to parts where more is needed
- Desalinating sea water ready to be treated for use in customers' homes
- Expanding existing reservoirs or building new ones

D5 To invest in these ideas, Welsh Water might need to increase water bills. Would you be willing to pay an extra [Pull through price point] on top of your current yearly water bill to enable Welsh Water to invest in these ideas?
D4 Please imagine you have 100 "points" to invest in these different ideas to increase our water supplies. How much would you give to each of these ideas? The more points you give means the more you like this idea. Base: Total sample (804)

SUPPLY-SIDE RESPONSE – What does this mean for WRMP24?



1	There is support for a greater supply-side response from DCWW to address potential shortfall, but customers do not want this to involve taking more water from the environment unless absolutely necessary.
2	Increasing storage is seen as a high priority solution to mitigating against future shortfall – primarily by expanding existing reservoirs or re-opening disused ones – even though customers realise this will be expensive.
3	Intra-regional transfers also garners a lot of support as a way of making more of resource we already have. Some want this taken further by trading water with other regions for financial gain that can be reinvested into the water infrastructure in Wales.
4	Water recycling and desalination both achieve similar levels of support and no strong rejection at a top level – though without exploring the detail of the processes involved, the cost or specific environmental impacts, this should only be seen as an initial indicative steer.
5	Whilst customers are willing to pay a bit more on their water bills to help fund their preferred supply-side solution/s, they expect this to coincide with DCWW working hard on demand reduction measures and are mindful of affordability in the current financial climate.

Click on the link below to see our video reel of DCWW customers

https://vimeo.com/640433285

Password: RelishWales

Moving forwards

Moving forwards

PLUG THE KNOWLEDGE GAPS – At the core of WRMP24, there is a need for wider engagement with customers to explain the realities of how climate change impacts water as a resource in Wales and the risk of shortfall.

BE AWARE THAT DEMAND MANAGEMENT IS A SOCIAL CONTRACT – Customers want leadership from DCWW on leakage which they believe has to be a major contributor to shortfall. Seeing this will encourage them to play their part to further reduce their consumption, and we need to arm them with the relevant information and tools to be successful at this.

MAXIMISE EXISTING RESOURCE – Customers prioritise increasing storage capacity and transferring water within Wales before turning to new sources of supply such as water recycling or desalination plants. Water trading outside of Wales for financial gain to reinvest in the infrastructure, is broadly welcomed and only rejected by a more vocal minority.

TAKE MORE FROM THE ENVIRONMENT AS A LAST RESORT – When they understand the environmental implications, customers will accept restrictions on their water use rather than DCWW taking more from the environment during times of drought. They see this as their wider civic duty/responsibility, though of course they don't ever 'want' restrictions.

ENSURE A BALANCED APPROACH TO BILL INCREASES – There is broad acceptance that an increased demand-side and supply-side response will mean an increase to customer water bills. But this needs to be within the context of water remaining affordable to all, particularly in the current economic climate.

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