

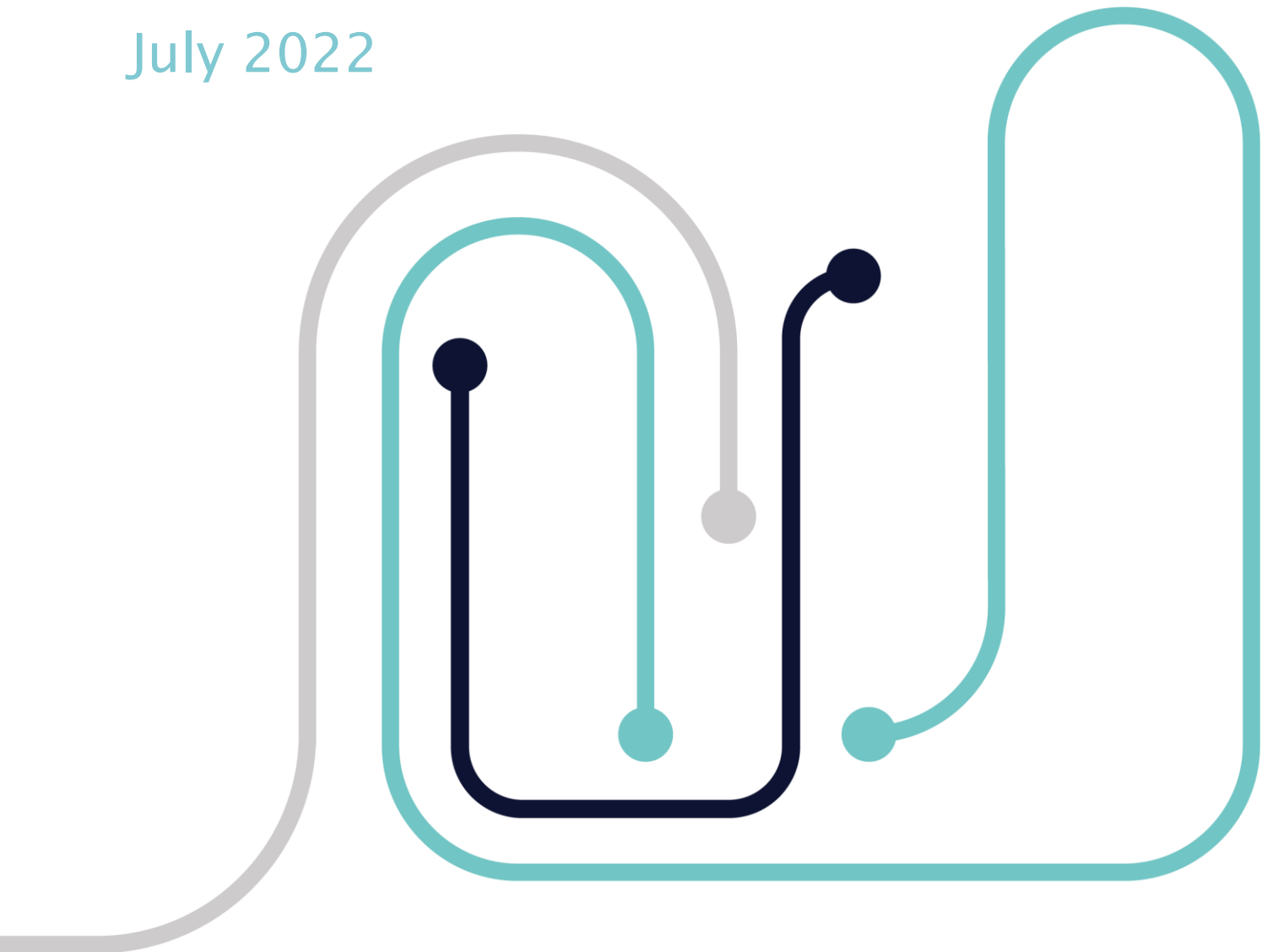


South West Water

**Bournemouth Water:
WRMP: Testing Supply and
Demand Options**

Customer research

July 2022



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Executive Summary

SWW are developing their draft Water Resources Management Plan (WRMP) which they will submit in October 2022.

South West Water are also part of the West Country Water Resources Group (WCWRG), an alliance of the three water companies that supply the south west region of England. Working with a range of supporting organisations linked to the water environment, WCWRG is responsible for producing a long-term, strategic best value plan for managing water resources in the region across public and non-public water supply. South West Water's WRMP must align with this regional plan.

The Bournemouth Water region is facing challenges from climate change, population growth, the need to protect the environment, and to maintain the resilience of water supplies in future. SWW are keen to understand customers' views and support for potential water supply and demand options specific to the Bournemouth region, including how they can address any customer concerns. In addition, SWW aims to understand whether views on compulsory metering have changed now that water shortages are becoming more prominent in the news.

ES.1 Research objectives

The objectives of this research are to:

1. Understand customer views on the balance of supply and demand, given future challenges, including demand increases and environmental protection for the Bournemouth area.
2. Establish customer views on options for the WRMP for the Bournemouth area and their relative priority, including:
 - Demand-side options – acceptability of compulsory metering including potential affordability impacts.
 - Supply-side options - Acceptability of effluent recycling (indirect and direct and a new reservoir.
3. Capture customer views on the relative priority and balance of options within the WRMP for the Bournemouth area, including:
 - The balance between supply and demand options.
 - The preferences for intervention given the uncertainty in the predicted pressures.
 - Views on the trade-offs between environmental impact, increased risk of shortages/restrictions and bill impacts/cost.
 - Identify any other options that customers feel should be considered.

ES.2 Approach

Bournemouth Water (BW) household customers were engaged in four online focus groups. The online groups support polls and interactive on-screen exercises, to increase engagement and promote discussion.

In total, 32 participants were involved in the in-depth discussions. Groups involved a cross section of BW customers (including a range of ages and socio-economic groups). All customers were responsible for their water bill.

All sessions took place in June 2022. The research was implemented online using the Visions Live platform (an online qualitative research host). Each focus group was approximately 90 minutes each.

ES.3 Key findings

Customers are largely unaware of the scale of the challenges facing the Bournemouth Water region.

They find it worrying that there may not be sufficient water supply in future and encourage BW to take action. Customers feel strongly that there should be greater awareness of future water supply issues and BW should be educating customers and planning for the long-term.

Even at an early stage of the discussions, customers recognised that interventions will be required to address the pressures on future water supplies. They also accept some usage restrictions when absolutely necessary.

Support for compulsory metering and reducing usage increases when customers are informed of the water supply challenges

Customers consider metering to be a fair method of charging, although managing affordability is a key part of ensuring customer support.

They agree that there is a collective responsibility for conserving water and feel it is realistic for most people in the country to reduce their daily water usage, especially if they are able to monitor usage.

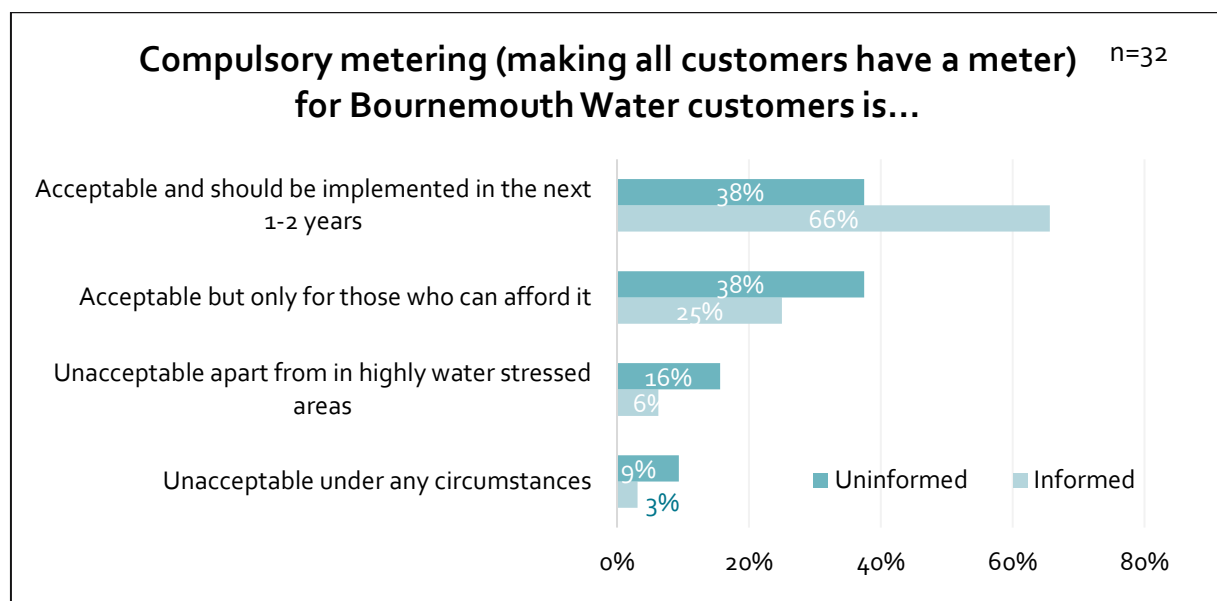


Figure ES-1: Acceptability of compulsory metering

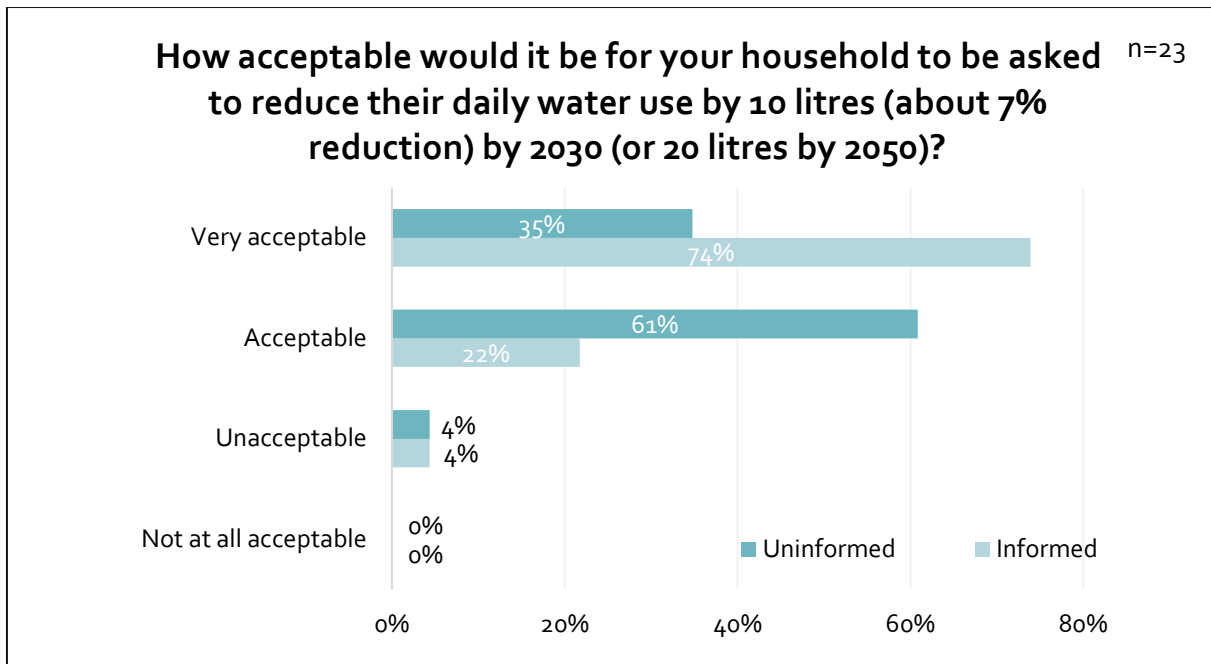


Figure ES-2: Acceptability of water usage reduction

Of the supply options presented during this research, a new reservoir is customers' most preferred option.

Customers are willing to accept the higher short-term impact of a new reservoir for a long-term benefit.

They are less accepting of effluent recycling, due to concerns about chemicals, carbon and increased energy usage. Some customers also feel it is unpleasant. Direct effluent recycling polarised views more than indirect recycling.

Sharing water is seen as a fair option – customers feel it 'makes sense' providing that the region giving the water is not left lacking supply.

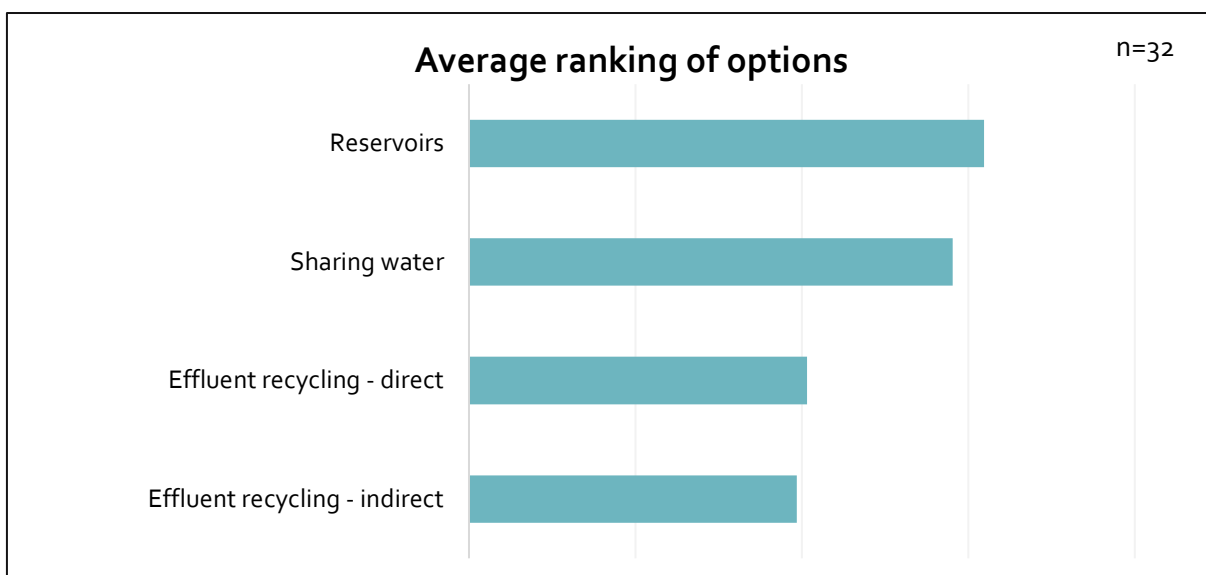


Figure ES-3: Average ranking of supply options

Customers support a balance between supply and demand solutions.

They feel that BW should invest and plan as soon as possible. They think there may be more challenges in the future, such as inflation and increased material costs, so it is better to start early.

Customers are worried about affordability, especially within the context of the rising cost of living. Some would not support early investment for this reason.

Customers would also like BW to consider/investigate desalination and grey water re-use.

1 Introduction

1.1 Project objectives

SWW are developing their draft Water Resources Management Plan (WRMP) which they will submit in October 2022.

South West Water are also part of the West Country Water Resources Group (WCWRG), an alliance of the three water companies that supply the south west region of England. Working with a range of supporting organisations linked to the water environment, WCWRG is responsible for producing a long-term, strategic best value plan for managing water resources in the region across public and non-public water supply.

South West Water's WRMP must align with this regional plan for the south west. The Bournemouth Water region is facing challenges from climate change, population growth, the need to protect the environment, and to maintain the resilience of water supplies in future.

A key part of developing the WRMP 25-year plan is understanding customers' views on water supply and demand options that are being considered and are specific to the Bournemouth region.

SWW are keen to understand customer support for potential options and how they can address any customer concerns. In addition, SWW aims to understand whether views on compulsory metering have changed now that water shortages are becoming more prominent in the news.

SWW has commissioned ICS Consulting to undertake qualitative research with customers in the Bournemouth Water area to understand awareness of the supply and demand balance and future challenges, and their views on the options for the WRMP.

1.2 Report structure

This report presents the findings from online focus groups with domestic BW customers on the topic of the Water Resources Management Plan.

The report is structured as follows:

- Research Process (Section 2)
- Views on the pressures facing the Bournemouth region (Section 3)
- Views on compulsory metering and reducing water use (Section 4)
- Views on supply options (Section 5)
- Views on balancing the Water Resources Management Plan (Section 6)
- Conclusions & Recommendations (Section 7)

The report is supported by the following appendices:

- Appendix A: Topic Guide
- Appendix B: Showcards

2 Research process

2.1 Research objectives

The objectives of this research are to:

1. Understand customer views on the balance of supply and demand, given future challenges
 - Understand customer views on future pressures, including demand increases and environmental protection and improvement for the Bournemouth area.
2. Establish customer views on options for the WRMP for the Bournemouth area and their relative priority, including:
 - Demand-side options – acceptability of compulsory metering including whether views have changed given higher media profile of water shortages, and potential affordability impacts.
 - Supply-side options - Acceptability of effluent recycling (indirect and direct), customer concerns and how these may be addressed and views on a new reservoir, including on cost and timescales.
3. Capture customer views on the relative priority and balance of options within the WRMP for the Bournemouth area, including:
 - The balance between supply and demand options.
 - The preferences for intervention given the uncertainty in the predicted pressures.
 - Views on the trade-offs between environmental impact, increased risk of shortages/restrictions and bill impacts/cost.
 - Identify any other options that customers feel should be considered.

2.2 Research approach

The research was implemented online with four separate groups of customers. The implementation plan and research materials (topic guide, showcards, etc.) were developed with input from South West Water.

The topic guides for the sessions were carefully structured to cover the research objectives. The research materials – including topic guides and stimulus – are provided for reference in Appendices A and B.

Each group featured a mix of discussion topics and exercises, including voting. The structure of the sessions is set out below.

Table 2-1: Overview of topic guide

| High level topic | Focus of understanding customer views |
|-------------------------------------|---|
| Water resources introduction | <p>This section gains an overview of customers' views on water and whether they are aware of water scarcity.</p> <p>Polls are included to start off the session to capture uninformed views, asking whether participants have water meters, their initial views on water availability, water metering and the acceptability of compulsory metering and water use reduction targets.</p> |

| | |
|--|---|
| | Customers are asked whether they understand where their water comes from at the moment, and whether they have heard anything about water scarcity in the media. |
| Supply/demand balance | <p>The aim of this section is to discuss the supply and demand balance and future challenges, so that participants understand the need for change including supply options.</p> <p>Researchers explain that water companies plan to ensure there is sufficient water for all homes and businesses in the area, before discussing how supply and demand can be affected over hot, dry summers. The different types of restrictions are also presented to customers, including rota cuts and standpipes.</p> |
| Future pressures on the supply/demand balance | <p>This section aims to understand customer views on future pressures facing water supply and the implications of these over a 25-year period, including demand increase, environmental protection, and improvements for the Bournemouth area.</p> <p>Researchers gain customer views on the 'no intervention' scenario in terms of both the environmental impact and the increased risk of shortages and restrictions, to identify if they accept the need for investment. This may influence their views on the acceptability of the supply and demand options.</p> |
| Options - Demand | <p>This section presents an overview of two key demand options: compulsory metering and reducing water usage. Probes are used to understand customer views, preferences, and concerns.</p> <p>Specifically, this includes the acceptability of compulsory metering, including its impact on affordability, as well as views on reducing water usage.</p> <p>Demand is included first in the discussion, to avoid the potential for any negative views on effluent recycling to influence views on the support for compulsory metering.</p> |
| Options - Supply | <p>This section includes an overview of some specific supply options that are being considered for the WRMP for the Bournemouth area, to understand customers' views, preferences and any concerns on:</p> <ul style="list-style-type: none"> • Effluent recycling (including both indirect and direct methods), as well as how any concerns could be addressed. • New reservoir, including cost and timescales. • Water sharing. |
| Planning – supply and demand | <p>This section aims to understand customer views on the relative priority and balance of options within the WRMP for the Bournemouth Water area, including any other options that customers feel should be considered.</p> <p>Customers' views are explored on:</p> <ul style="list-style-type: none"> • trade-offs between environmental impact, the increased risk of shortages or restrictions, and bill impacts or costs • timing of investment, given the balance between supply risk and uncertainty. |

| | |
|-----------------------------------|--|
| Return to polls | Polls on views on metering and the acceptability of compulsory metering and water use reduction targets are repeated to understand whether customer views change as they become more informed. |
| General feedback and close | To collect feedback on the sessions and provide a final opportunity for customer questions. |

2.3 Focus group organisation

Bournemouth Water household customers were engaged in four online focus groups which took place in June 2022.

In total, 32 participants were involved in the in-depth discussions. Groups involved a cross section of BW customers (including a range of ages and socio-economic groups). All customers were responsible for their water bill.

The research was implemented online using the Visions Live platform (Figure 2-1). The online groups support polls and interactive on-screen exercises, to increase engagement and promote discussion. Each focus group was approximately 90 minutes.

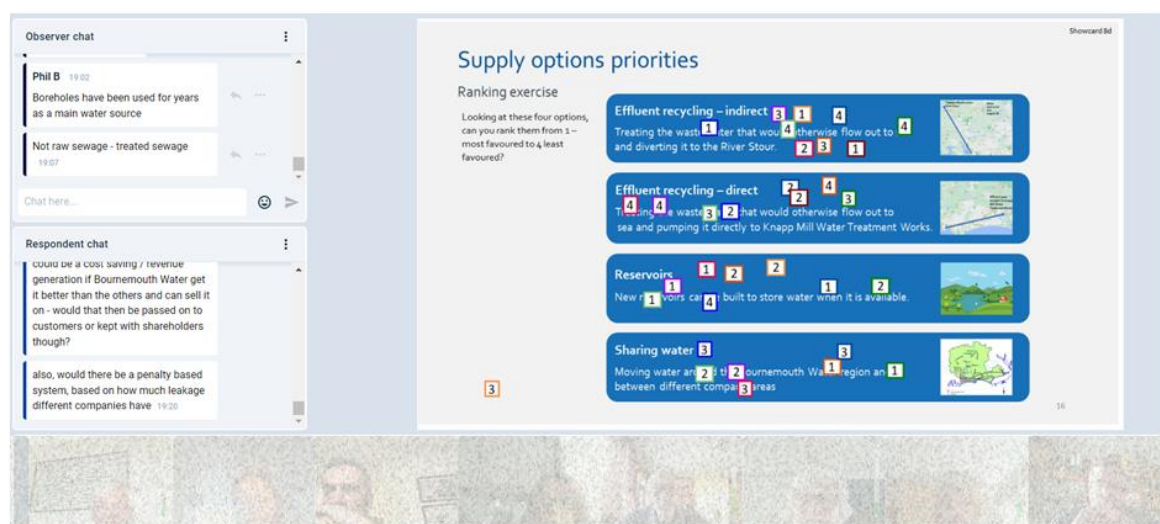


Figure 2-1: Visions Live online platform

The groups were implemented in the same way as conventional in-person focus groups, with the same approach to recruitment, participant discussions and stimuli, and the same number of participants per group. The online groups were conducted with onscreen video so that all the participants could see each other and the moderator(s). This allowed them to engage and interact more fully with each other and helped encourage conversation and discussion. It also allowed for the moderator(s) to manage the group more effectively by visually monitoring the level of engagement and encouraging those who are quieter to contribute.

Table 2-2 shows how the recruitment was structured for each group.

Table 2-2: Session summary

| Group | SEG | Age | Gender |
|---------|------|-------|--------|
| Group 1 | C2DE | 46+ | Mixed |
| Group 2 | ABC1 | 18-45 | Mixed |
| Group 3 | C2DE | 18-45 | Mixed |
| Group 4 | ABC1 | 46+ | Mixed |

As questions were presented, participants were invited to give their direct feedback to questions presented on a whiteboard, as well as to discuss amongst themselves. All sessions made use of online voting as a way of summarising customer views.

All the groups were organised and run by ICS moderators – who are members of the Market Research Society, and thereby adhere to and follow industry standards. The moderators ensure discussions are independent and unbiased: both aspects are extremely important in ensuring a discussion where everyone's views are valid and there are no right or wrong answers.

Where participants raised questions that the moderators had not been briefed on, observers were able to provide text answers and comments via the private observer chat – allowing for live client feedback during the sessions without disrupting the group discussion. Similarly, group participants were able to use a chat function within Visions Live. This was used extensively within the groups for participants to share their views, in particular on storm overflow outcomes.

The functionality also gave them the opportunity to 'raise their hand' to speak, to address any technical problems, and add comments while other participants were speaking (to avoid 'talking over' others).

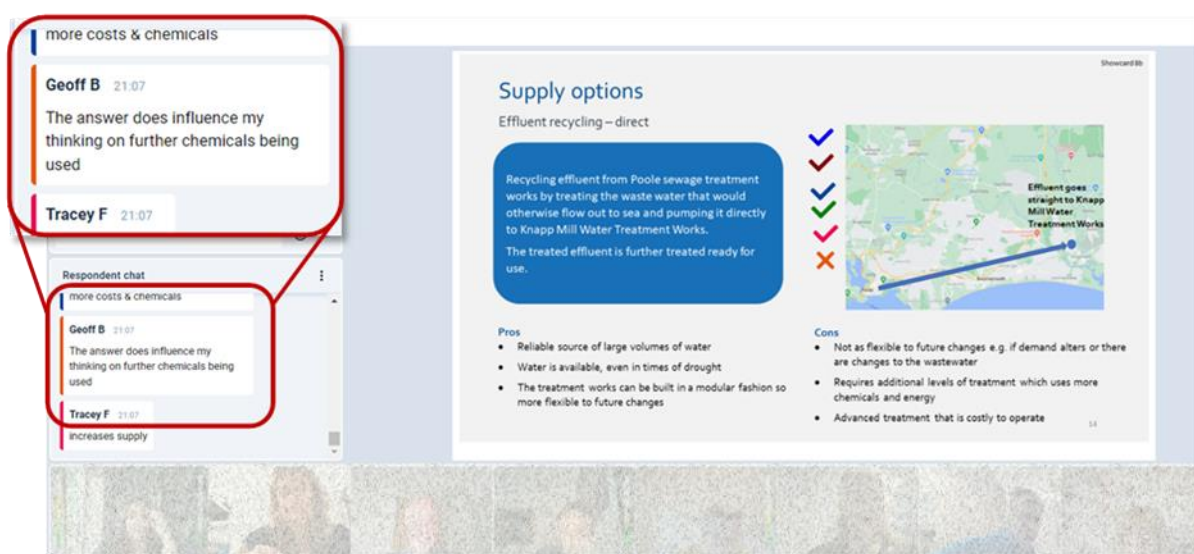


Figure 2-2: Use of the respondent chat on Visions Live

High levels of engagement were demonstrated by participants positively contributing. The voting exercises and visual prompts worked well and enlivened the sessions, giving participants the opportunity to interact onscreen, adding breaks and conclusions to more detailed discussions.

2.4 Profile of customers engaged in the research

In total 32 customers were engaged across four focus groups. These were all customers of Bournemouth Water. The groups were split by age group and each group represented a mix of SEGs.

The groups were structured to include a range of ages and socio-economic groups (SEG)¹ to capture multiple viewpoints. The groups included those with and without meters, as well as those with long-term health issues and disabilities.

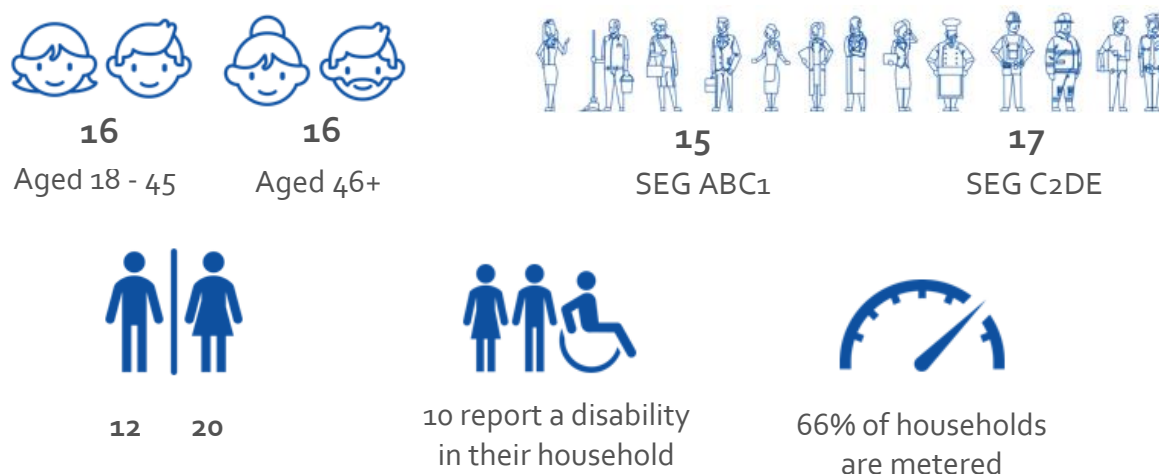


Figure 2-3: Profile of participants

The sample includes:

- Good mix of ages and occupations/socio-economic groups.
- 10 respondents who identify as having someone in the home with a long-term physical or mental health issue.
- 21 participants who are metered and 11 who are unmetered.
- 16 participants with children living at home.

Five customers reported having a household income of less than £16,500 per year, meaning the views of low-income households were present in the research. Eight participants live in rented properties.

¹ The Office of National Statistics (ONS) divides households into different groupings, based on the occupation of the main income earner, known as SEGs. Given the correlation between occupation and income using these to segment customers in market research ensures a diverse range of households by income are considered. The groups are: A - Higher managerial, administrative, professional; B - Intermediate managerial, administrative, professional; C1 - Supervisory, clerical, junior managerial; C2 - Skilled manual workers; D - Semi-skilled and unskilled manual workers; and E - Casual labourers and unemployed.

3 Views on the pressures facing the Bournemouth Region

Customers are largely unaware of the scale of the challenges facing BW.

- They find it worrying that there may not be sufficient water supply in future and encourage BW to take action. Customers feel strongly that there should be greater awareness of future water supply issues and BW should be educating customers and planning for the long-term.
- Even at an early stage of the discussions, customers recognised that interventions will be required to address the pressures on future water supplies. They also accept some usage restrictions when absolutely necessary.

3.1 Views on pressures

Customers have limited awareness of the scale of the challenges facing BW in terms of water resources (Figure 3-1).

Customers understand the impacts of climate change and population growth and why water may be scarcer during hot summers. A minority of customers challenged the predictions, saying changes in rainfall did not reflect their experience.

Only two customers had seen information about future water supplies. One had seen information on water-saving technology in new builds and another customer had watched a recent Countryfile programme on the pressures facing England's water resources.

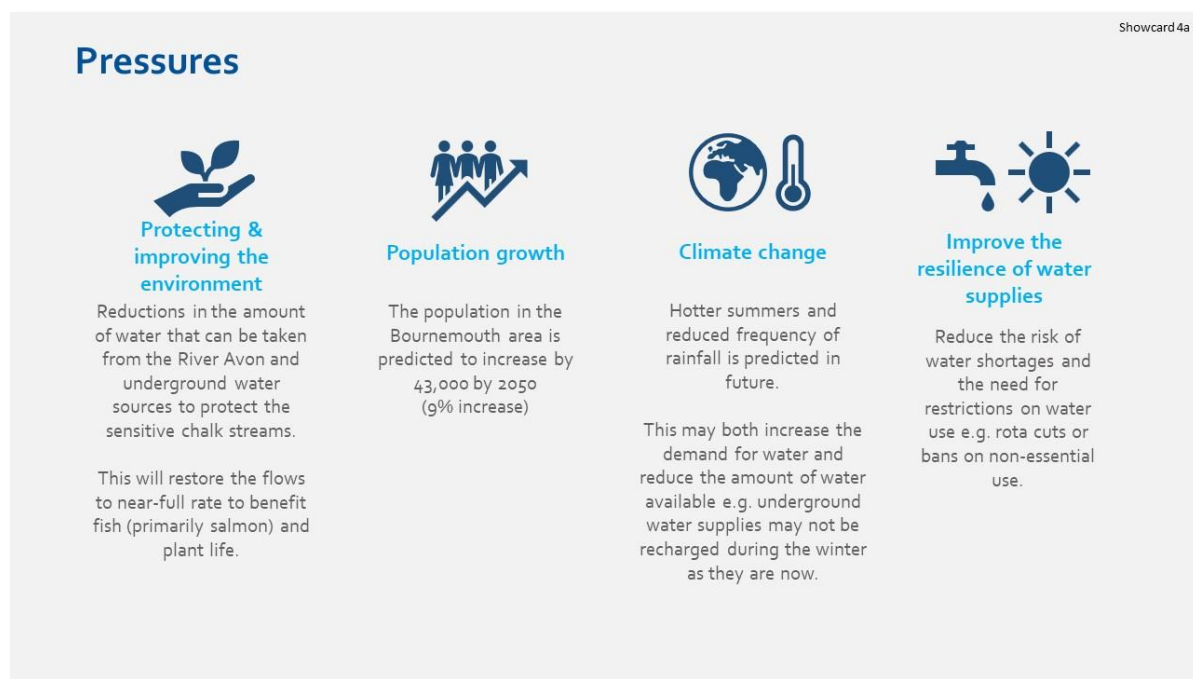


Figure 3-1: Water resource pressures showcard

Customers find it worrying that there may not be sufficient water supply in future and encourage BW to take action. They strongly feel that there should be greater awareness of the future issues and BW should be educating customers and planning for the long-term.

“

"With climate change, reduced frequency of rainfall combined with 43,000 increase in persons – is there going to be enough water?"

Male, ABC1, Aged 46+

"We've got hotter climate-wise, so we also have hotter periods, but we also have rainier periods and storms and, whilst we used to get a lot of grey and drizzle, we have a lot more tropical storms and stuff than we used to have, so surely that would balance that out."

Female, C2DE, Aged 46+

"I think it's really quite worrying, that by 2040 there could be only half the water from the River Avon ... It's a bigger move on awareness and education; it's everyone's problem and responsibility to be careful with water."

Female, ABC1, Aged 18-45

"I think water is really important and I just think in the campaigns for cigarettes, how they put warnings on the packets, so maybe [in] warmer weather [they] could send warnings to houses by email, or that sort of stuff."

Female, C2DE, Aged 18-45

”

3.2 Views on changes required

Customers recognise that interventions are required to address the pressures on future water supplies.

From an uninformed position, around two thirds of customers feel there is enough water to go around if we are all careful (Figure 3-2). Whilst many say that they take water for granted, several customers also say they are conscious of their water usage and try to conserve it where they can.

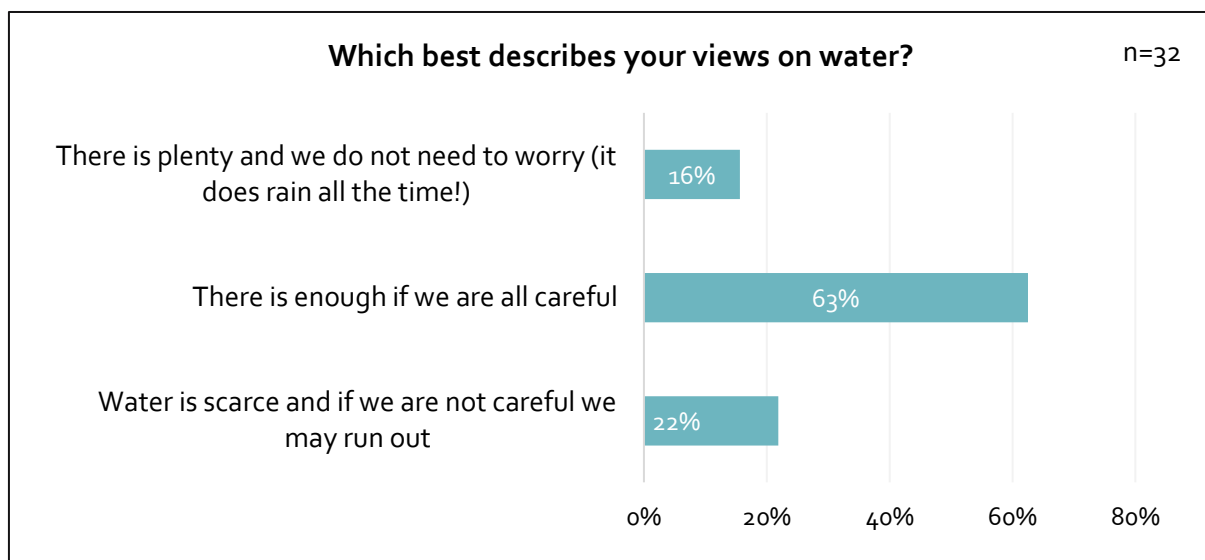


Figure 3-2: Views on water – initial poll

A key concern is that the increasing pressures on water supply may lead to an increase in prices, making a basic necessity less affordable.

Prior to discussing options, customers flagged the need for better education and reduced water usage alongside water companies having a plan in place for storing and preserving water for times of drought. This aligns with later findings, following the discussion of options, that show customers support a balance between supply and demand.

“

"Water goes round in a cycle; therefore, there is water. It doesn't increase or decrease; it's just somewhere else in the system."

Male, ABC1, Aged 18-45

"Doesn't it come down to being better able to maintain the water when it is plentiful?"

Male, C2DE, Aged 46+

"I think they'll have to increase prices, because demand will go up if the population growth is going up, and there is a need to protect the environment."

Female, ABC1, Aged 46+

"There's going to be pressure on the water supply, and cost involved somewhere. It's either cutting how much water people use, or there's going to be more cost incurred."

Male, ABC1, Aged 18-45

"If we all have the education on how to use the water and the electricity, we can avoid this kind of thing."

Female, C2DE, Aged 18-45

"I think we should be able to take water for granted. It's one of the basic necessities of life, and we shouldn't have to think about it."

Male, C2DE, Aged 46+

”

3.3 Views on restrictions to water use

Customers have mixed views around restrictions (Figure 3-3). They understand that restrictions may be necessary under some circumstances; however, they feel that bans on usage should be a 'last resort'. We heard negative views about the more severe restrictions, with one customer considering such restrictions to be 'draconian'.

A few participants had experience of severe water restrictions either in the past (in other regions) or in other countries, whereas others had memories of milder restrictions.

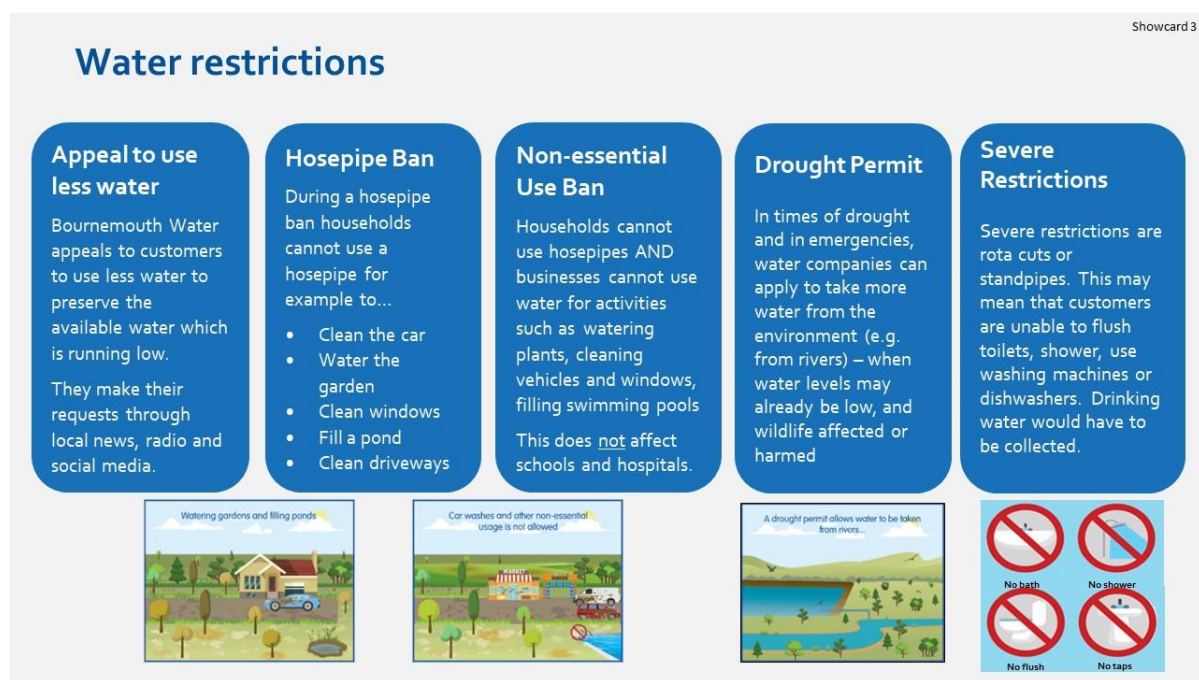


Figure 3-3: Water restrictions showcard

“

"If push comes to shove, we have to impose those restrictions, but it's a very last resort, isn't it?"

Male, ABC1, Aged 46+

"[Severe restrictions] would be quite hard to live with."

Male, C2DE, Aged 18-45

"If it's needed then I'd be ok with it, we can adapt."

Female, C2DE, Aged 18-45

"It sounds horrendous to be honest, not flushing toilets, walking to the local pump for water ... it conjures up third world country sort of status, doesn't it?"

Female, ABC1, Aged 46+

"I've gone through the restrictions on the right, I've gone through that and see water as quite a scarce supply."

Female, ABC1, Aged 18-45

”

4 Views on compulsory metering and reducing water use

Support for compulsory metering and reducing usage increases when customers are informed of the water supply challenges

- Customers consider metering to be a fair method of charging, although managing affordability is a key part of ensuring customer support.
- They agree that there is a collective responsibility for conserving water and feel it is realistic for most people in the country to reduce their daily water usage, especially if they are able to monitor usage.

4.1 Overall acceptability of compulsory metering and reducing water use

Results from the polls show that support for compulsory metering and reducing usage increases when customers are informed about water supply and demand pressures and the implications.

ACCEPTABILITY OF COMPULSORY METERING

A majority of customers find compulsory metering acceptable. Whilst seen as a fairer approach, customers raised concerns about the bill impacts,² particularly how higher bills may impact vulnerable customers. This aligns with findings from recent research for West Country Water Resources Group (WCWRG)³.

When uninformed, almost 4 out of 5 customers supported compulsory metering (Figure 4-1). This support is split evenly between views that compulsory metering should be implemented without any caveats (within the next 1 to 2 years) and those considering that only customers who can afford the change in bill should have a metered installed. Similarly, the recent WCWRG research found more support for compulsory metering than voluntary metering.

Support increases further to more than 9 in 10 customers once people understand water supply pressures facing the region. Once informed, the support is more heavily weighted towards implementing compulsory metering in the next one to two years.

² See Section 4.3 for more information on the bill impacts shown Figure 4-5 to customers

³ Customer Research to Inform the Best Value Water Resource Plan for the South West, Qualitative Research Report, May 2022

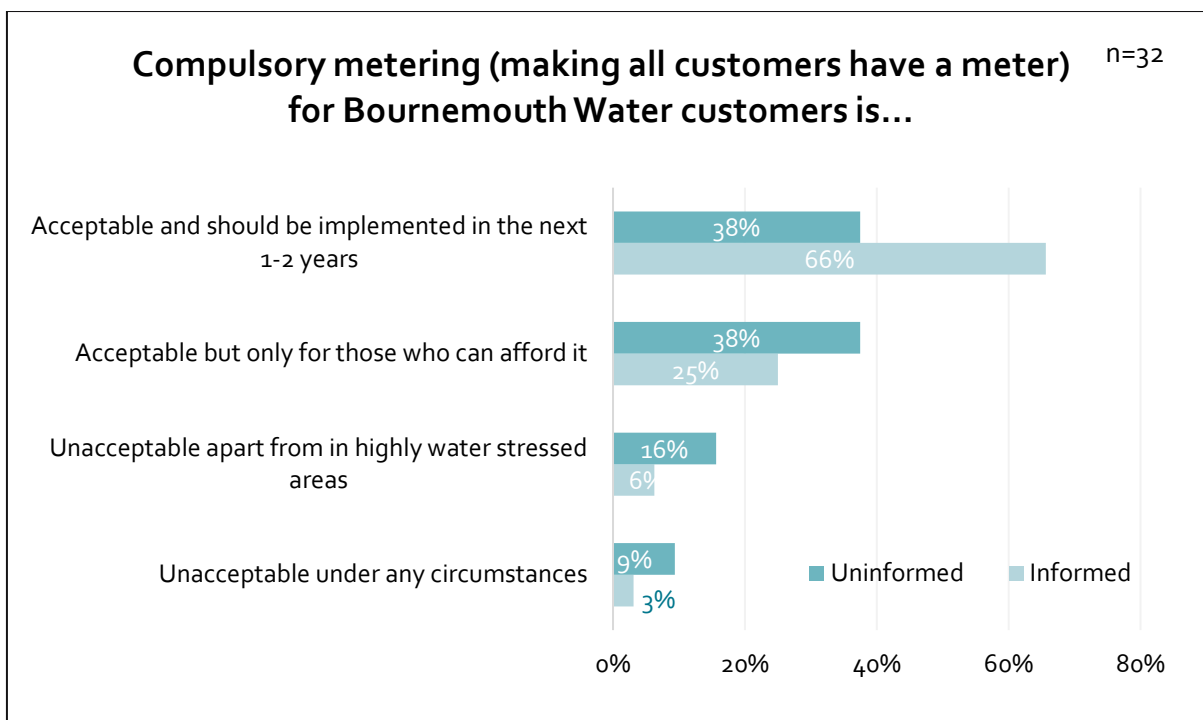


Figure 4-1: Acceptability of compulsory metering

ACCEPTABILITY OF REDUCING WATER USE

Similar to compulsory metering, the strength of support for target reduction in daily usage increased after the discussion (Figure 4-2).

Customers feel that education and awareness are essential to conserving water. Reducing water usage is possible for some customers, but others feel that they are already doing their best to conserve water.

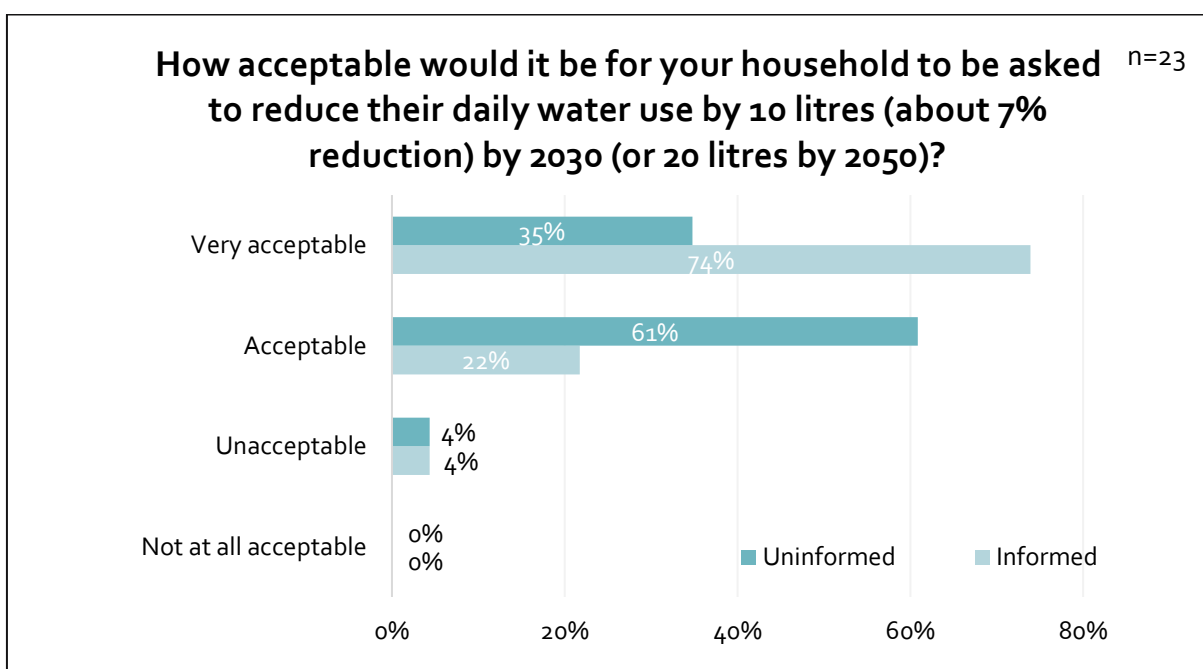


Figure 4-2: Acceptability of targeted usage reduction

4.2 General views on metering

66% of participants currently have a water meter (Figure 4-3). Most customers with water meters like them. A small proportion do not like a meter, feeling that they are paying an unfair amount. Customers also recognise that meters may be good for the environment by making users more aware of their consumption.

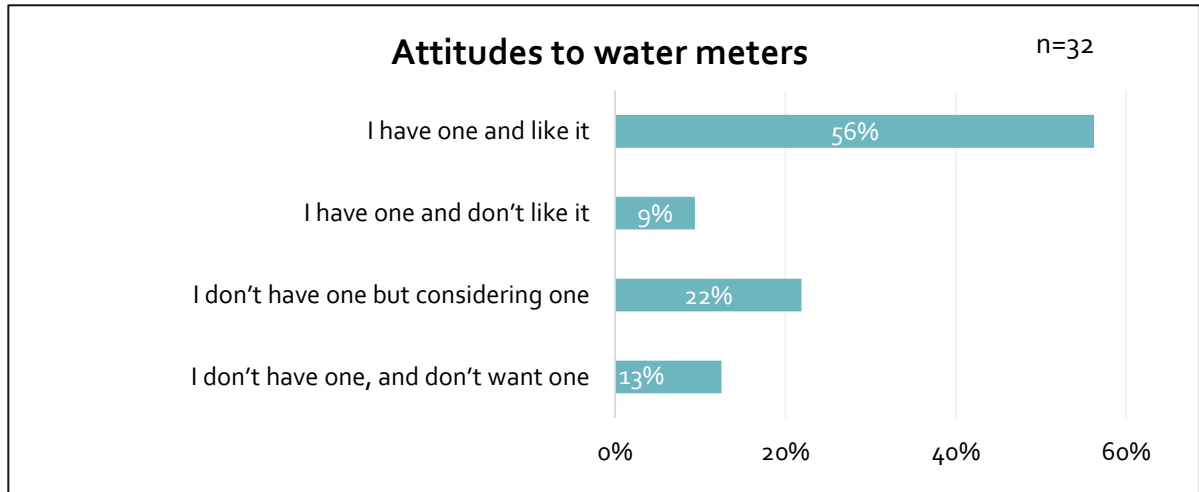


Figure 4-3: Attitudes to water meters

At the outset of the sessions, before any discussion, views on water metering were more balanced between participants, with just under half considering everyone should have a water meter (Figure 4-4). After the discussion, this increased to two thirds of participants, with a further fifth considering meters in a positive way as necessary to save water.

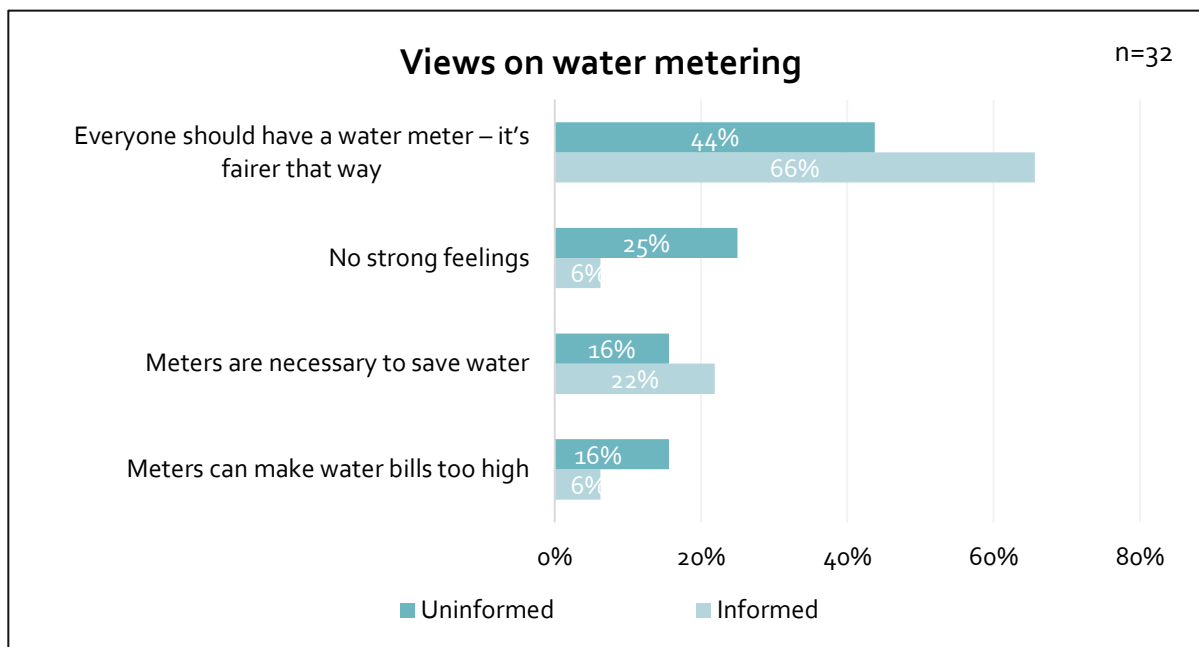


Figure 4-4: Views on water metering

Typically, customers say that water meters offer a fair method of charging for water usage.

“

"I think it's much fairer and it makes people think about it so there's not as much careless water use."

Female, C2DE, Aged 46+

"It's only fair to pay for the water to use, so I think everyone should have a meter."

Female, C2DE, Aged 18-45

"I think it would be fair if everyone had a water meter, but maybe they need to look at the charges to incentivise people to take that option up."

Male, C2DE, Aged 46+

”

4.3 Improving acceptability of compulsory metering

Managing affordability is a key part of customer support of compulsory metering. Affordability is the main detractor of compulsory metering, especially for those less able to pay, and particularly in the current context of the rising cost of living.

When shown the potential impacts on bills (Figure 4-5), some customers were concerned that compulsory metering would disproportionately impact vulnerable customers.

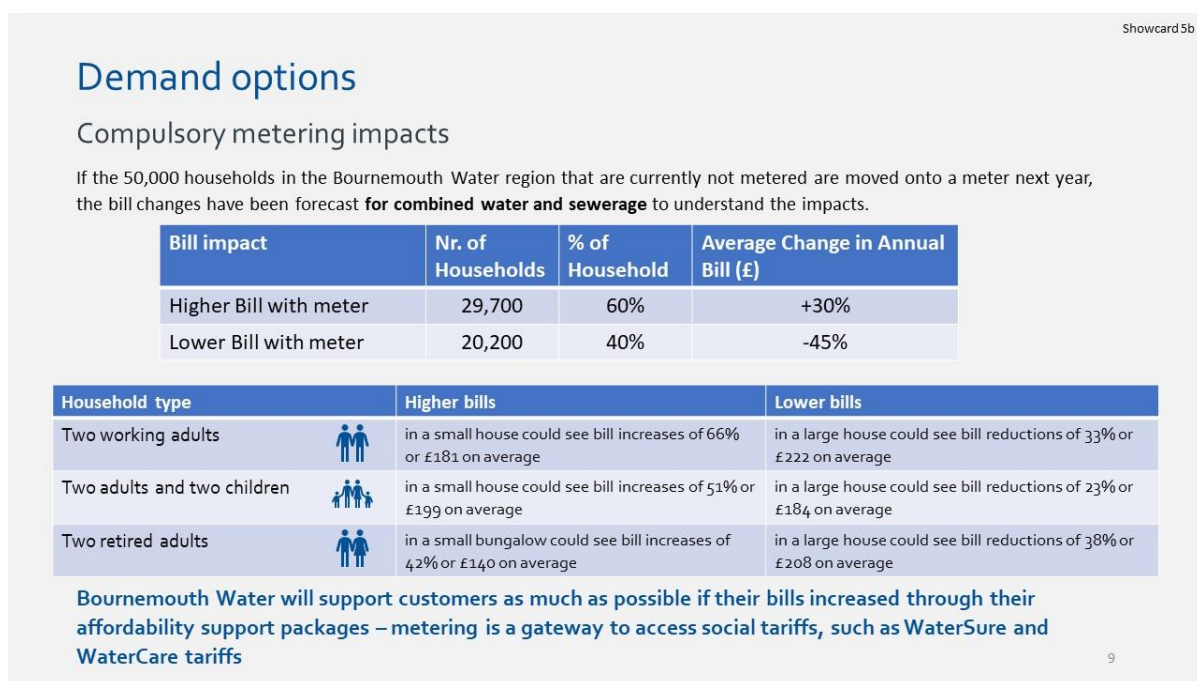


Figure 4-5: Impacts of compulsory metering showcard

“ *"It would penalise people who might be less able to afford an increase, perhaps. With the way things are going generally, I think it would be a further blow to those struggling."*

Female, ABC1, Aged 18-45

"They are pretty high rises, so I can see it affecting an awful lot of people, and at the moment that can be pretty drastic for a lot of families."

Female, ABC1, Aged 46+

”

Some customers reject being forced to have a meter – for some, this is driven by affordability, whilst others simply want the right to choose. However, some changed their mind after discussing the pressures on water supply.

“ *"I have a water meter and it's more expensive ... We had no choice when we moved in ... I think everyone should be given a choice."*

Male, C2DE, Aged 18-45

”



“ *"I think you should either be given a choice, or it should be compulsory for everyone."*

Male, C2DE, Aged 18-45

”

Compulsory metering is more acceptable where customers can monitor their usage, putting them in control of reducing their consumption. This aligns with recent WCWRG research which showed stronger support for compulsory or smart metering than voluntary metering.

“ *"I know we can get those smart electric meters now which tell you much water it takes to boil the kettle or have a shower. How much water does it take to actually have a shower? Perhaps if you bought in meters like that, so people could actually understand how much water they were using, it would change their attitudes potentially."*

Female, ABC1, Aged 46+

"Maybe some sort of smart meter which tells you, if you run a bath, it's costing you this amount and using this amount of water."

Female, ABC1, Aged 18-45

”

4.4 Views on reducing water use

Customers agree that there is a collective responsibility for conserving water.

Customers feel it is realistic for most people in the country to reduce their daily water usage, especially if they are able to monitor usage. They recognise that not everyone will follow reduction guidance,

reflecting similar concerns amongst WCWRG participants as to whether people could be trusted to change behaviours to reduce demand.

“

"It's very realistic, especially if we all consciously make an effort to reduce our water consumption by doing these things. Most of us are probably doing some of these things already, but it's about reducing it more."

Female, ABC1, Aged 18-45

"They're not realistic ... there needs to be support for people who can't afford to rip out their toilets or buy the latest appliances."

Female, ABC1, Aged 46+

”

Many participants already make small changes at home to conserve water, and some felt it would be difficult to make further reductions. Whilst there is good awareness of water-saving devices, customers suggest that, to achieve this reduction, incentives or subsidies for water-saving technology alongside educational campaigns would be required. Some customers also said that being able to monitor usage with help customers to reduce their usage - reflecting comments on the discussion of compulsory metering.

Showcard 6

The target reduction in water consumption means

- Don't leave taps running
- 4 min showers and very limited baths
- Install water efficient taps, shower heads
- All old toilets with large cisterns replaced with modern dual flush
- Install water efficient appliances – washing machines, dishwashers
- Any internal plumbing leaks fixed (e.g washers, toilet overflows)
- Rainwater storage so that rainwater can be used for external water uses
- Some properties use recycled water to flush toilets

11

Figure 4-6: Water usage reduction methods showcard

Of the suggested ways of reducing water consumption (Figure 4-6), small changes such as not leaving taps running are seen as reasonable. Four-minute showers divided opinion – some felt they were realistic, others felt this was a drastic reduction. Again, this aligns with WCWRG research, where four-minute showers generated the most discussion regarding whether it was a realistic expectation.

Replacing cisterns, flushes and plumbing, or installing water butts led to concerns about associated upfront costs. Customers feel that BW or the government should offer subsidies or incentives to support these.

“

"Turning off the tap when you're brushing your teeth; not flushing the toilet every single time you go if you're at home all day ... that could make quite a difference."

Male, ABC1, Aged 46+

"The first thing that popped out to me was the 4-minute shower. That's crazy in my opinion. There is a lot of me! ... I think rainwater storage would be great but help towards the cost would be easier."

Female, C2DE, Aged 18-45

"The thing that stands out to me about all these things apart from not leaving the tap running and the 4-minute shower – the rest of them, they all mean more cost to us, to change things, and at the moment, in the situation we're going through [cost of living increase], it's not feasible I don't think."

Male, C2DE, Aged 18-45

"I remember hearing nearly all of that list when I was younger in school; I know that I know these facts and I know that I can do these things to reduce my usage, but it's not at the forefront of my mind. I feel if I saw more advertisement about it, I'd be far more conscious of it."

Male, ABC1, Aged 18-45

"Ideally, as you can get with the electric meters and so on, you can monitor your own usage. ...If you can see where you can make reductions on them, that seems fair. If we're on a meter system where we can't see what we're doing and someone else tells us if our bill goes up or down, that doesn't seem particularly fair to me. I think most of us are doing these things anyway; we're all quite conscious. If the responsibility is put on us, that's fair enough, but we need to see the impact of what we're doing."

Female, C2DE, Aged 46+

”

5 Views on supply options

Of the supply options presented during this research, a new reservoir is customers' most preferred option.

- Customers are willing to accept the higher short-term impact of a new reservoir for a long-term benefit.
- They are less accepting of effluent recycling, due to concerns about chemicals, carbon, and increased energy usage. Some customers also feel it is unpleasant. Direct effluent recycling polarised views more than indirect recycling.
- Sharing water is seen as a fair option – customers feel it 'makes sense' providing that the region giving the water is not left lacking supply.

5.1 Preferences for options

A new reservoir is the preferred solution of the options considered (Figure 5-1). Customers consider a new reservoir to be more acceptable than effluent recycling. They also support sharing water in principle⁴.

Customers feel reservoirs are 'worth the wait' and some consider them to be a more natural solution than effluent recycling. The WCWRG research also showed reservoirs to be the most strongly supported supply option.

Sharing water is also a popular option with customers saying it 'makes sense' and it is fair.

Effluent recycling is the least popular of the supply options considered, with direct and indirect effluent recycling being ranked equally. Some customers feel it is unpleasant, whereas others feel it is worth a try.

Affordability is a concern with all options.

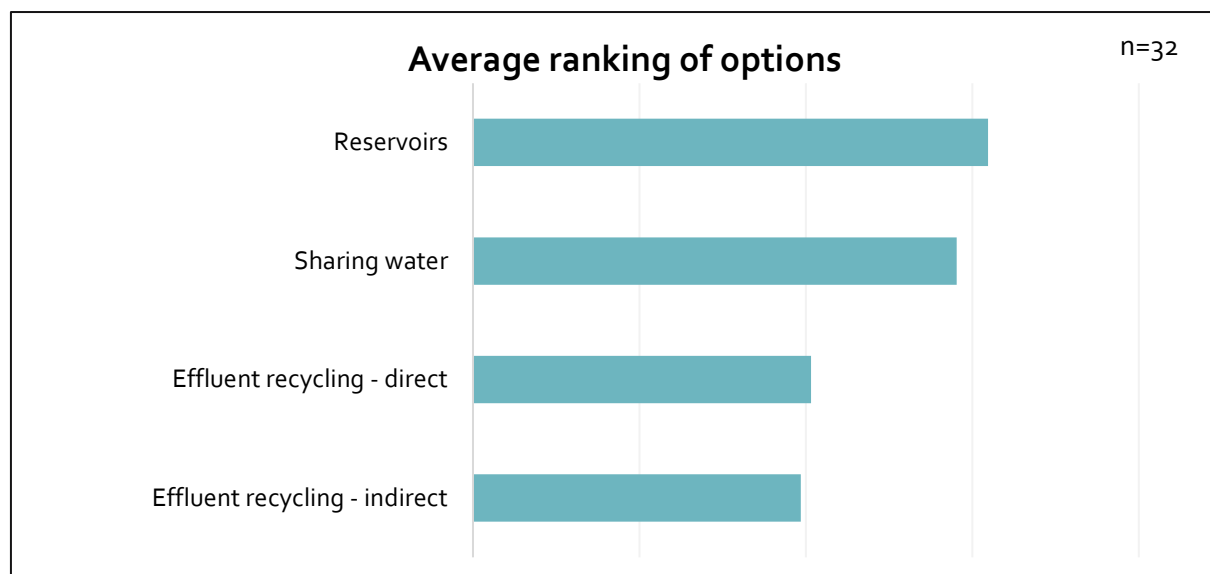


Figure 5-1: Average ranking of supply options

Note: Pros and cons were presented on screen for reservoirs and effluent recycling, but not for sharing water.

⁴ Pros and cons were presented on screen for reservoirs and effluent recycling, but not for sharing water.

“

"I think the pros outweigh the cons ... with reservoirs, it may be a longer wait, but it will have more of an impact in the long run."

Female, ABC1, Aged 18-45

"How much is this going to cost for the tax payer? That's what matters to me basically."

Male, C2DE, Aged 18-45

”

5.2 Acceptability of a new reservoir

The majority of customers feel reservoirs are acceptable (Figure 5-2).

Customers are willing to accept the higher short-term impact of a new reservoir for a long-term benefit (Figure 5-3). This reflects that many customers mentioned improved water storage as a solution before reservoirs were presented as an option (See section 3.2).

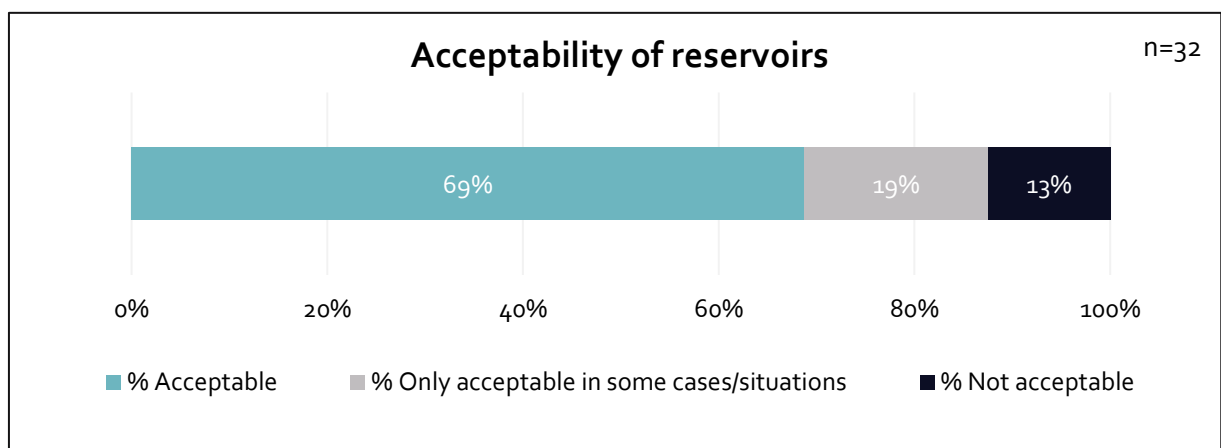


Figure 5-2: Acceptability of reservoirs

Showcard 8c


Supply options

Reservoirs

New reservoirs can be built to store water when it is available.

Pros

- Reliable - provides large volumes of additional water when it's needed, e.g. in summer
- Will deliver the amount of water that is planned for under most conditions
- Once built, they can be used for recreation (e.g. fishing, sailing) and can support a range of wildlife



Cons

- High cost and high carbon impact
- Long time to plan, get permission for, and build
- High impact and disruption on communities, landscape and the natural environment during construction

15

Figure 5-3: Supply options - reservoirs showcard

Customers see reservoirs as a more natural and sustainable supply solution. They favour the additional benefits to recreation, wildlife, tourism and potentially job creation. A minority felt that a new reservoir was a disruptive and unnatural solution.

A new reservoir would be more strongly supported by customers if it were cheaper or more carbon efficient. Short-term affordability is a concern, especially in the context of rising cost of living. All groups stated concerns about the carbon impact of reservoirs.

“

"I really like this idea, the reservoir, because you can get large volumes of water. However, the bit that I got stuck on was the high carbon impact and high cost. If there was a way to reduce the cost somehow, I would have done a tick, but that was still a bit of a sticking point for me."

Female, C2DE, Aged 18-45

"Sounds like the safest option so far, albeit costly and higher carbon footprint."

Female, ABC1, Aged 18-45

"It's good long-term but we need to get in there early and we need to get the planning - the land and the approval and the education program needs to start immediately."

Male, ABC1, Aged 46+

”

5.3 Acceptability of effluent recycling

Customers are less accepting about effluent recycling for a variety of reasons (Figure 5-4). They express concerns about the chemicals used in effluent recycling, as well as the cost of increased energy usage and the carbon impact. Despite these negatives, many customers feel that it is important to consider all the options in order to address the pressures on water supply, and therefore support BW utilising effluent recycling.

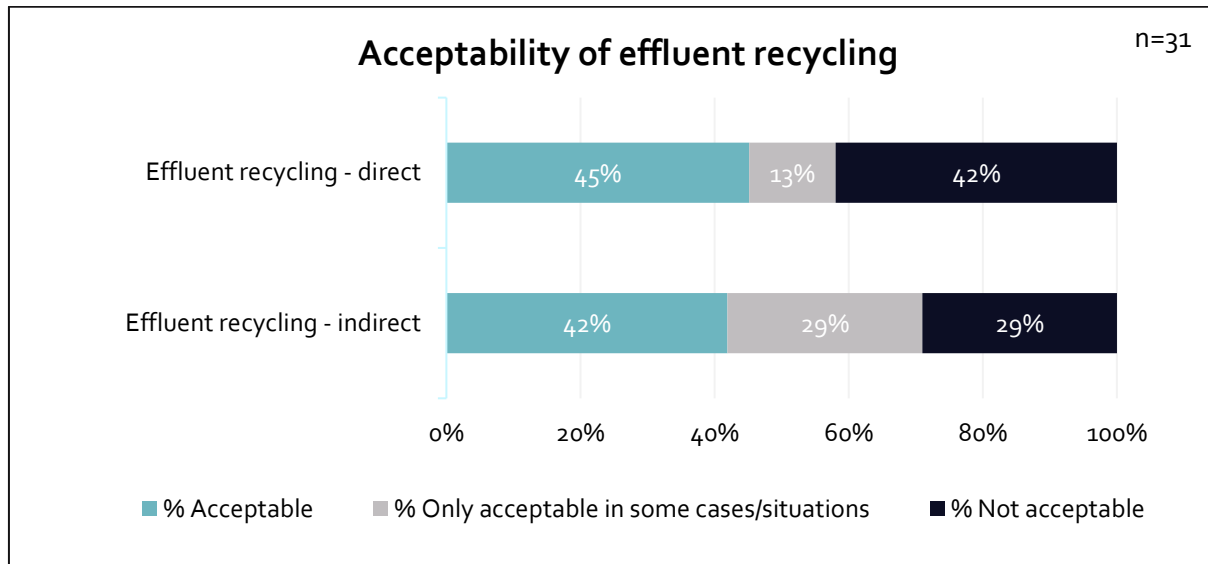


Figure 5-4: Acceptability of effluent recycling

Some customers instinctively feel that effluent recycling is unpleasant; however, their views were tempered after researchers explained the treatment involved. WCWRG research shows similar views of the 'yuck' factor and chemical usage, and that greater education may improve support for the option. A minority said they felt nothing would make effluent recycling acceptable.

Customers are positive about the word 'recycling'. A few customers already had experience of effluent recycling in other countries or cities and supported this option. There were also requests for further information to make an informed choice.

“

"It's just one of those things that seem unpleasant ... I'm sure it would become normalised."

Female, ABC1, Aged 18-45

"This concerns me about the quality of water and chemicals we would be consuming."

Female, C2DE, Aged 46+

"If it's going to help, then why not? If it helps all of us and we're going to have enough water in the future, and the water is okay to use, then that's fine."

Female, C2DE, Aged 18-45

”

VIEWS ON INDIRECT EFFLUENT RECYCLING

Indirect effluent recycling raised some concerns about treated effluent being channelled into watercourses, e.g. through chemicals or lower quality effluent entering the environment. Underlying some of the negative views is a distrust of the sewerage company's adherence to regulatory standards. This was influenced by recent media coverage of the industry (e.g. CSO spills).

Some customers preferred indirect over direct because it had more flexibility in future. One customer said they thought indirect recycling was safer than direct, because treated effluent would have been diluted with river water.

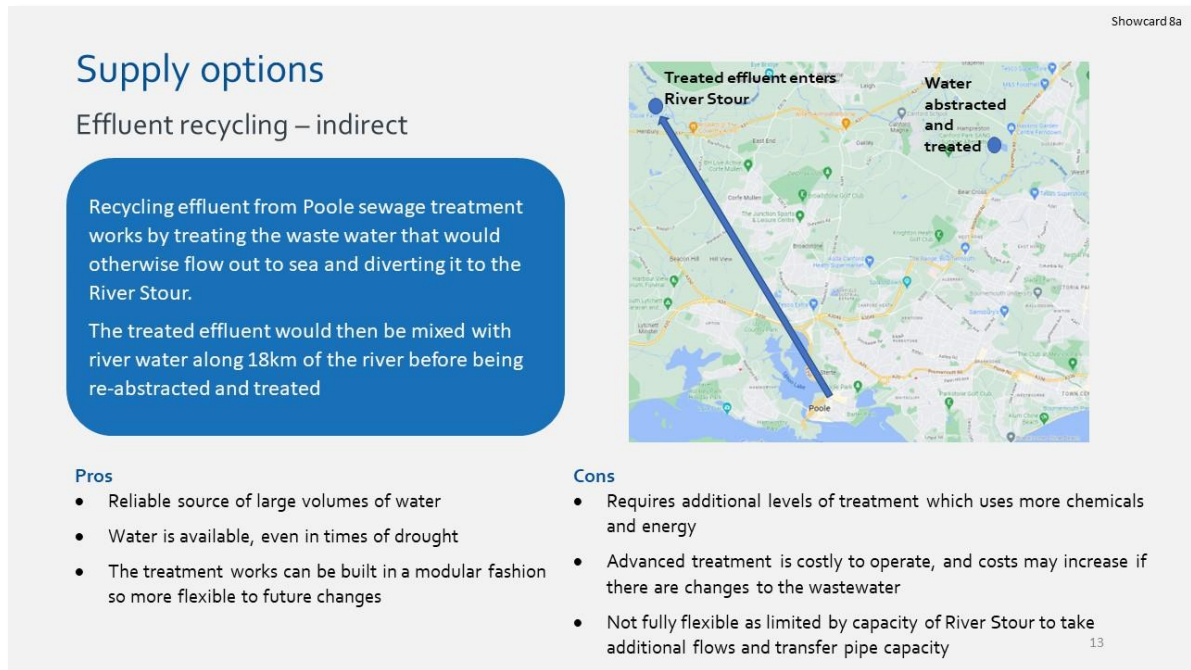


Figure 5-5: Supply options - indirect effluent recycling showcard

“

"I don't trust 'required treatment' standards."

Male, C2DE, Aged 46+

"My initial concerns are about the quality of the water being returned to us, and I think if it's diluted with the river water, it might have less chance of diluting any nasties, so I think [direct recycling] is probably worse from my initial perspective than [indirect]."

Female, ABC1, Aged 18-45

"We're talking about the future, and [indirect] was more flexible for the future."

Female, C2DE, Aged 18-45

”

VIEWS ON DIRECT EFFLUENT RECYCLING

Direct effluent recycling polarised views more than indirect recycling (Figure 5-4). Customers have both stronger positive and negative views of direct recycling than indirect.

For many customers the 'yuck' factor is stronger for this option due to its direct approach.

For others, direct effluent recycling is seen as potentially more efficient, safer and better for the environment, as the treated effluent bypasses rivers. Even with the direct option, there is some distrust around the impact of sewage or chemicals on the environment.

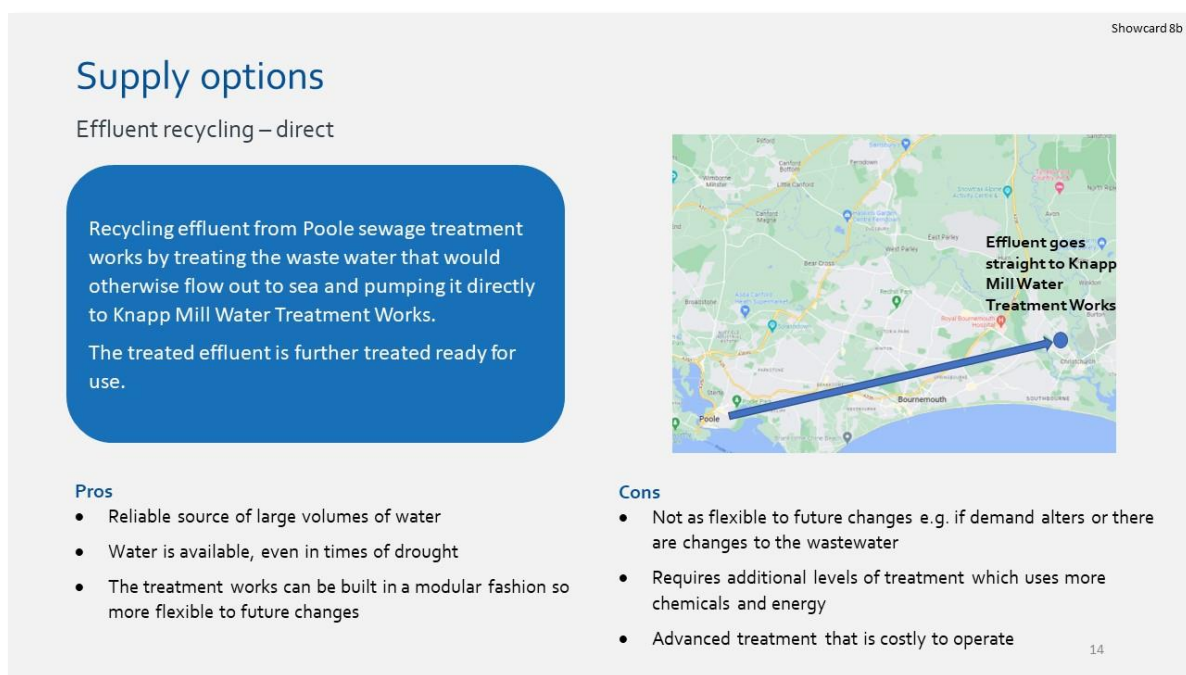


Figure 5-6: Supply options - direct effluent recycling showcard



"[Indirect effluent recycling risks the] potential of polluting the river. This way whilst more inflexible and open to error seems slightly safer perhaps?"

Female, ABC1, Aged 18-45

"I just think it sounds better. It seems more efficient if it's going straight to a plant and taking out that natural element of it ... I don't know how different that would be for the environment, but this just seems to make more sense."

Male, ABC1, Aged 18-45

"I have issues with the amount of waste that goes into the sea and river at the moment, massively... But [direct effluent recycling] would be taking that water and making use of it and treating it without pumping it into the rivers, which is good as far as I can work out."

Female, C2DE, Aged 46+

"I've heard through the TV and stuff about how a number of times the treatment plants go wrong, and they end up putting either raw sewage or chemicals into the rivers. How is it different if they're trying to pump it? They're saying it's treated and it's being pumped from one place to another, but how do we know that? Because they haven't really been honest have they?"

Male, C2DE, Aged 46+



5.4 Acceptability of sharing water

Sharing water is seen as a fair option. Customers feel that it is reasonable to share water with other regions, saying it 'makes sense' providing that the region giving the water is not left lacking supply. As a natural resource, participants are comfortable with water being considered at a more national level or shared between regions.

Customers caveated their support by saying water sharing would need careful regulation, and it was important that regions have standards (e.g. in terms of pricing and leakage). Others said their support for water sharing was dependent on the cost impact. A minority also shared a 'selfish' view that they would feel more comfortable receiving water than supplying water.

The findings echo the response to the WCWRG research, which found that customers are supportive of sharing resources where recipients were meeting similar standards and there was no financial burden on the supplier company.

“

"Whenever you see the rain falling in Northern Ireland, Scotland and Lancashire where I used to live, you think, why can't I get some way of sharing the water? We're on the same island, and anything that goes towards that, if water companies are sharing resources, I think it's a great idea."

Female, ABC1, Aged 46+

"I think it's great if they can pool their resources and provide a certain level for everybody, rather than some have none and some have too much."

Female, ABC1, Aged 18-45

"I don't think it's unreasonable at all. It's almost like a free commodity. I appreciate it's not, we're paying for it, but of course we should share providing we're not without."

Female, ABC1, Aged 18-45

"That worries me because BW is good at managing their supplies, but other companies may not be. So does that leave us vulnerable?"

Female, ABC1, Aged 46+

”

6 Views on balancing the water resource management plan

Customers support a balance between supply and demand solutions.

- They feel that BW should invest and plan as soon as possible. They consider there may be more challenges in the future, such as inflation and increased material costs, so it is better to start early.
- Customers are worried about affordability, especially within the context of the rising cost of living. Some would not support early investment for this reason.
- Customers would also like BW to consider and investigate desalination and grey water use.

6.1 Views on balancing supply and demand options

Customers agree that there is a collective responsibility to respond to the pressures on water supply, favouring a balanced approach between supply and demand options. Some customers suggest a 50/50 balance, whereas some feel it should be weighted more heavily towards demand. Some customers also suggest that BW should do their part to reduce leakage and demonstrate/communicate this, if they expect customers to also reduce their usage.

There is a pragmatic view that limiting demand will 'only go so far'. Customers relate reducing consumption to facemasks for covid and warnings on cigarette packets – saying education will be effective for some, but not for all.

Education and awareness to reduce demand is seen as low-hanging fruit for BW – a low-risk option for the water company to try. Customers strongly support education to raise awareness of the pressures facing water supply and what action they can take.

“

"We can't rely on people wholeheartedly, so increasing our ability to store it is going to be a good thing."

Female, ABC1, Aged 46+

"I agree that it should be 50/50. responsibility of the individual and the company."

Female, C2DE, Aged 46+

"I'd say 50/50 really, a bit of both."

Female, C2DE, Aged 46+

"Two-pronged attack ... we should look at reducing our consumption, through education ... perhaps water meters might be the way forward, although I have concerns about it targeting less financially able people. And then they should invest also in alternative sources such as reservoirs and sharing of water."

Female, ABC1, Aged 18-45

"It feels as though limiting demand is only going to help a certain amount. For the long term, taking into account climate and population growth, potential decline of pipes, etc., then the water company need a long-term storage option ... that's the reservoirs and improvement of existing services/leakages."

Female, C2DE, Aged 46+

"There are [pressures] that you're absolutely going to be able to do nothing about. Infrastructure takes a long time and if you have the best educational programs in the world and get people to use less water, etc. I find it hard to see how you can meet the demand caused by those pressures, so I think you need to be balancing both aspects. I absolutely think there should be education, but there needs to be an acceptance that you will need to increase supply."

Female, ABC1, Aged 46+

”

6.2 Views on investment timings with uncertainty

Customers feel that BW should invest and plan as soon as possible and are willing to accept the risk of some uncertainty. They think there may be more challenges in the future, such as inflation and increased material costs, so it is better to start early. A step-by-step approach is recommended by some, to help manage risk.

On the flip side, customers are worried about affordability, especially within the context of the rising cost of living. A minority of customers would not support early investment for this reason. Customers acknowledge that this is a hard decision to make.

“

"I think they should be investing now and looking at a mix of things to see what the best option is for the future."

Male, C2DE, Aged 46+

"Now, as inflation will only rise, and materials, wages, etc., will cost more, worst case when required materials/technology will be more advance so can be implemented when required."

Male, ABC1, Aged 18-45

"Yeh, there is always risk; you've just got to model and plan accordingly. It's not bad if you end up with too much water."

Female, ABC1, Aged 18-45

"Prepare now - as all planning takes such a long time anyway."

Female, C2DE, Aged 46+

”

6.3 Views on balancing investment to protect the environment and restrictions on water use

Customers are generally in favour of protecting the environment, but not at the expense of the well-being of vulnerable customers. They are willing to accept some restrictions (particularly milder restrictions) for the protection of the environment.

There is uncertainty on how BW should balance environmental protection, increased risk of shortages and bill impacts.

“

"It's my concern for vulnerable members of society ... they will not use the resources available to them, and they will go without, and they will suffer, necessarily. So there has to be a balance between the environment and the use for people as well."

Female, ABC1, Aged 46+

"Implementing some mild restrictions for the benefit of the environment ... that's great and that should be considered in how people operate on a daily basis. But if you're not allowing people to use water at all and we're thinking about the extreme ends of the restriction, I think most would prefer to put the washing machine on and not have those restrictions, against the environment."

Female, ABC1, Aged 18-45

”

6.4 Alternative options suggested

Customers would also like BW to consider desalination and grey water as options.

Customers in all groups referenced desalination, often mentioning it unprompted. There is a perception that because the Bournemouth region is close to the sea, that resource should not be overlooked, although customers accept that this is dependent on cost to the customer.

This is consistent with WCWRG research which found customers supported desalination over effluent recycling.

“

"Is there any reason why we live on an island, but we can't use seawater and take the salt out of it? Because that's a constant resource."

Female, C2DE, Aged 46+

"Because we're an island, is there an option for desalination plants or things like that? ... That seems the most sensible option, but it depends how much it will cost us as users."

Female, C2DE, Aged 18-45

"There are other countries using salt water, and if other countries can do it, why can't we?"

Male, C2DE, Aged 18-45

"You may have to look at ways of sourcing water from somewhere else. We live by the sea – maybe desalination, or alternative ways of keeping up water supply?"

Female, ABC1, Aged 46+

”

Some customers also talked about the use of grey water, which was linked with better education.

“

"Perhaps introduce the use of grey water more. We tend to get a bit precious about the use of grey water when actually a lot of other countries do it really successfully, and perhaps the population just needs to be educated?"

Female, ABC1, Aged 46+

”

7 Conclusions

This engagement supports SWW in developing their draft Water Resources Management Plan (WRMP) which they will submit in October 2022.

Focussing on the specific needs of the Bournemouth Water region, it developed understanding of customers' support for potential supply options being considered for the region, demand options particularly compulsory metering, and how SWW can address any customer concerns.

In the process of developing their WRMP, SWW recognise the need to align with the overall regional plan for the south west, developed by the West Country Water Resources Group (WCWRG). This engagement with Bournemouth Water customers frequently echoes the findings of WCWRG's recent research, building on existing research and showing consistency in views across regions. Specifically, similar customer views are reported around support for compulsory metering, reservoirs and sharing resources; concerns about effluent recycling; and doubts around achievement of water usage targets.

We heard that customers in the Bournemouth area are largely unaware of the challenges facing the region. As a low baseline, this highlights an opportunity for SWW to build customer awareness of future water supply issues, and that educating customers now would help to achieve long-term plans.

Support for various demand measures, including compulsory metering and reducing water use, increases when customers are informed. Increased awareness is therefore expected to improve acceptability of measures.

Overall, customers consider metering to be a fair method of charging for water usage, and fairness is an important theme throughout the research. Customers agree that there is a collective responsibility for conserving water, however, they recognise that there may be barriers to customers reducing their usage. Primarily, there are concerns about the bill impact of compulsory metering, particularly on large families or low-income households. They suggest that SWW could reduce barriers by ensuring bills remain affordable, offering incentives for water saving measures (e.g., water efficient appliances, rainwater butts), or enabling customers to monitor their water usage.

Reservoirs are favoured by customers as a long-term option for increasing water supply, even if there is a greater short-term impact on bills. There are more mixed views on effluent recycling, driven in part by the 'yuck' factor of treated effluent. If effluent recycling was implemented, then it would benefit from being supported by communication regarding treatment standards. Customers also see sharing water as a potentially fair option in principle, providing the supplying region is not left short, although further research is recommended to explore customer support in more detail. Customers would also like BW to consider desalination and grey water use.

Customers recognise the need to plan and invest as soon as possible, in order to prepare for future challenges. They anticipate further hurdles if planning is left too late, including inflation and increased materials costs. However, these concerns are tempered by worries about affordability within the current climate of increasing living costs.

Appendix A – Topic Guide

SWW Bournemouth Water - Water Resources Management Plan Topic Guide

| Introduction | 5 mins (5) |
|--|------------------|
| <p>Facilitator to introduce himself/herself, explain the format of the discussions, and set out objectives of the discussion: <i>to explore your views on how Bournemouth Water manage water resources and supply of clean water in the future.</i></p> <p>ICS are independent and working on behalf of South West Water, including Bournemouth Water</p> <p>Explain MRS code of conduct and rights to anonymity</p> <p>Explain session etiquette</p> <p style="padding-left: 40px;">We want to make sure we hear everyone's views, so please raise your hand using the on screen option</p> <p style="padding-left: 40px;">Use the chat box to share views</p> <p>Explain observers may review the sessions, and sessions are recorded for internal use</p> | |
| Water resources introduction | 10 mins MAX (15) |
| <p>In these sessions we want to explore your views on how Bournemouth Water manages our water resources in the future. Bournemouth Water is working with the other water companies – South West Water, Wessex Water and Bristol Water- as well as other water users in the south west to develop a regional plan to look at what's needed for water supplies in the region to 2050 and beyond</p> <p>As well as this regional plan, Bournemouth Water is also developing a plan specific for their customers and it's this water resources plan – focussed on the Bournemouth area – that we want to discuss today.</p> | |
| <p style="color: #00A0C0;">Check any questions before starting.</p> | |
| <p>To begin with, we'd like you to answer a few polls to help get used to the technology and get started</p> | |
| <p style="color: #00A0C0;">Exercise: Polls:</p> | |
| <p>(i) Do you have a water meter?</p> <ul style="list-style-type: none"> • I have one and like it • I have one and don't like it • I don't have one but considering one • I don't have one, don't want one <p>(ii) What's your view on water metering?</p> <ul style="list-style-type: none"> • Everyone should have a water meter – it's fairer that way • Meters are necessary to save water • Meters can make water bills too high • No strong feelings <p>(iii) Compulsory metering (making all customers have a meter) for Bournemouth Water customers is</p> <ul style="list-style-type: none"> • Acceptable and should be implemented in the next 1-2 years • Acceptable but only for those who can afford it | |

- Unacceptable apart from in highly water stressed areas
 - Unacceptable under any circumstances
- (iv) Which best describes your views on water
- There is plenty and we do not need to worry (it does rain all the time!)
 - There is enough if we are all careful
 - Water is scarce and if we are not careful we may run out
- (v) How acceptable would it be for your household to be asked to reduce their daily water use by 10 litres (about 7% reduction) by 2030 (or 20 litres by 2050)?
- Acceptable
 - Quite acceptable
 - Quite unacceptable – I'm not willing to do this
 - Very unacceptable – I'm not willing to do this

Very briefly just to get people talking, probe a couple of the responses (but don't over-run this section timewise) e.g.:

What do they like/don't like about metering? (initial views)

If anyone answered 'there is plenty' probe why they think that and what water sources they are thinking about

For those that said they would struggle to use less water– why is this? Have you already taken steps to lower your water use?

Overall, to what extent would you say you take water for granted?

- Have you heard or read anything recently about future water supplies? What have you heard?
 - If needed: ask if they have heard about water shortages, water stress or water scarcity
 - Can you briefly tell us what you heard and the source? Probe to see if it is the 'usual' warnings about saving water, short term issues or whether they have picked up on the longer-term challenges
 - Have your views on the availability or scarcity of water, and/or how you use water changed because of things you've heard or read? Probe briefly, concentrating on the longer-term issues

Intro to Bournemouth Water

Showcard 1: Where does our water come from?

The slide shows where your water supply currently comes from – the majority comes from two rivers – in Hampshire the River Avon and in Dorset the River Stour – with rest from underground water sources

Is there anything that surprises you? Probe very briefly if anyone picks up on surface water vs. groundwater (i.e. hardness) or highlight any concerns or issues

Supply/demand balance

10 mins MAX (25)

Water companies plan to ensure there is sufficient water for all homes and businesses in their area.

Showcard 2a (supply demand graph)

On the graph there is the demand line – which shows how much water is predicted to be used for drinking, showering, watering gardens, etc and also by businesses and industry including

agriculture, but also the water that is lost through leaking pipes – both customer pipes and the mains owned by the water companies. The supply line on the graph shows how much water is available to be used for all those reasons.

What do you think happens when there is a hot, dry summer or low rainfall? What do you think happens to supply and to demand? *Probe briefly just to check they understand the concepts*

Showcard 2b (supply demand graph).

So now looking at this next graph – what do you think is happening here? *Probe briefly for trends: demand– increased population, drier weather increasing demand, leakage; supply - changing weather patterns (climate change), supply reductions due to environmental pressures (e.g. sensitive habitats).*

Showcard 3 – Types of restrictions

In times of drought and during more extreme water shortages/severe drought, water companies can impose different types of water service restrictions. These are summarised on the showcard. A hosepipe ban would be imposed first and then if the water supply situation got worse, further restrictions would be imposed

Any questions on these restrictions? *Check they understand that with rota cuts and standpipes, water would be available for emergency services, hospitals and the vulnerable. And that severe restrictions would last for a period of time i.e. several weeks*

To date Bournemouth Water has never had to impose any forms of water restrictions, even when other parts of the country have been in drought.

Future pressures on the Supply/demand balance

10 mins (35)

If required: What do you think are the challenges and pressures on the water supply over the next 25+ years? *Probe to get initial views to see if they recognise any challenges*

Showcard 4a - Pressures

This shows the pressures on water supply for the Bournemouth area over the next 25 years

Is there anything that surprises you, anything you didn't expect? *Probe to see if there's anything different they expected, do they focus on any particular pressure over others etc*

Overall, what do you think is the implication of these pressures on Bournemouth Water over the next 25 years? *Probe to see if they recognise demand increasing but supply of water decreasing so expect a deficit*

Showcard 4b – what does this mean for Bournemouth Water

- (vi) What do you think the implications for customers and other users would be if these 2 scenarios happened? *Probe to see if they identify increased risk of water restrictions or impact on the environment in future*
 - a. Is that acceptable? *Probe reasons*
- (vii) Water resource plans look to ensure there is enough water available to meet the demand from customers and other users. And if there is not enough, that this can be addressed by either increasing supplies, or reducing demand
 - a. What do you think it is important to consider when looking at options to make sure there is a surplus/buffer between supply and demand? *Probe bills, certainty/confidence in investment delivering what planned, levels of service, environmental impacts.*

Options - demand**15 mins (50)**

We're going to look at options to reduce demand first. Bournemouth Water already undertake a range of activities to encourage customers to reduce their water usage including customer awareness and education initiatives, and having challenging targets to reduce leakage from pipes.

Currently household customers in existing properties can choose to have a meter fitted – all new houses and businesses have to have a meter. Three quarters of Bournemouth Water households currently have water meters. It has been shown that, on average, customers with water meters use 15% less water than those without meters.

Because of the challenges faced with the water supply, one option under consideration is using compulsory metering – i.e. all Bournemouth Water household customers would be forced to have a meter installed. At the moment Bournemouth Water anticipate that most customers will have a meter by year 2050, so compulsory metering would achieve this much quicker

Showcard 5a – compulsory metering

This shows a summary of compulsory metering and the pros/cons. What are your views?

Probe to understand reasons for their choices, if unacceptable is it on principle or what would make it acceptable, are they thinking of other customers or themselves

Showcard 5b – compulsory metering impacts

Bournemouth Water have completed some analysis about how compulsory metering may impact those customers who don't have a meter and are currently charged on a rateable value basis. Bournemouth Water will support customers as much as possible of their bills increased

Had you thought about any of these impacts? Anything surprise you?

Does this influence your views? Probe whether they had thought about the impact on vulnerable customers etc

Daily water usage and population growth

The population in the Bournemouth Water area is predicted to grow by around 43,000 customers by 2050 – how do you think Bournemouth Water should manage this increase in demand? Probe to see what options they suggest if supply focussed or alternative demand options such as additional water efficiency measures, rainwater reuse etc

Now thinking about your personal water usage, how do you feel about everyone in the country having to reduce their daily water usage? It's been suggested that there should be a target amount of water used per person per day by 2050. This is approx. 20-25% reduction across households – and it's been estimated that this would require all customers to take the steps shown as a minimum.

Showcard 6 – water usage

Probe if they think that is realistic, acceptable that government tells people what to do, do they think customers can achieve it consistently, is there anything they think is unrealistic e.g. 4 min showers

If not covered – do you think its realistic that everyone takes all steps and maintains them over time? As a check that they realise this isn't one-offs during dry spells etc

What about the proposed timing – is 2050 realistic? Probe if they think it should be sooner etc

If not covered sufficiently - Is there anything else about options to reduce demand that you'd like to highlight?

Options – supply**25 mins (75)**

We're now going to look at options to increase the supply of water. Bournemouth Water are looking at a range of options to increase the supply of water from other sources to meet the increase in demand in future with population growth and the loss of water from existing sources for environmental protection and due to climate change.

Showcard 7 – Summary of existing options

They are looking at different options so that they make sure that there is sufficient water available to avoid severe water restrictions.

Any questions? Any initial views?

In addition to these options, Bournemouth Water are looking at some other options that they would like to get your views on

Showcard 8a – Effluent recycling - indirect

Exercise: Please read the showcard and then vote whether the option is acceptable or not:

- i. Tick – option is acceptable
- ii. Rectangle – option is only acceptable in some cases/situations
- iii. Cross – option is not acceptable

Probe reasons for votes, what they like/dislike and why.

For those that voted 'in some circumstances' or unacceptable, what would need to change to make the option become acceptable

- Probe if there are any there any specific risks/issues that concern you about this option?

For those that voted acceptable – is there anything that would make the option less acceptable to you?

Showcard 8b – Effluent recycling - direct

Exercise: Now looking at this option, vote whether the option is acceptable or not:

- i. Tick – option is acceptable
- ii. Rectangle – option is only acceptable in some cases/situations
- iii. Cross – option is not acceptable

Probe reasons for votes, what they like/dislike and why.

Did the direct vs. indirect make any difference. Why?

For those that voted 'in some circumstances' or unacceptable, what would need to change to make the option become acceptable

- Probe if there are any there any specific risks/issues that concern you about this option?

For those that voted acceptable – is there anything that would make the option less acceptable to you?

Showcard 8c – New reservoir

Exercise: Now looking at this option – this is a new reservoir in a location yet to be identified (additional to the Mendips Quarry option), vote whether the option is acceptable or not:

- i. Tick – option is acceptable

- ii. Rectangle – option is only acceptable in some cases/situations
- iii. Cross – option is not acceptable

Probe reasons for votes, what they like/dislike and why.

For those that voted 'in some circumstances' or unacceptable, what would need to change to make the option become acceptable

- Probe if there are any there any specific risks/issues that concern you about this option?

For those that voted acceptable – is there anything that would make the option less acceptable to you?

Sharing water

Regional plans may involve sharing water resources, rather than each company supplying their own customers from sources of water within their area. So these new water sources may be shared with other companies in the south west region, or they may share their resources with Bournemouth Water. How do you feel about that?

Probe what factors may influence their acceptance of transfers

Showcard 8d – supply options

Exercise: Ranking. Looking at these four options, can you rank them from 1 – most favoured to 4 least favoured

Probe the factors influencing any overall preferences

If appropriate - Challenge whether they have considered the high cost, long lead time, environmental impact of a reservoir over effluent recycling.

If not covered sufficiently - Is there anything else about options to increase supply that you'd like to highlight?

Planning – supply and demand

10 mins (85)

Showcard 4b as reminder – what does this mean for Bournemouth Water

Looking at the Water Resources Plan overall, you will recall that the future pressures mean that by 2045 it is predicted that there will not be enough water to meet the demand from customers and other users

How do you think Bournemouth Water should balance the plan in terms of relying on reductions in water demand verses investing to increase water supplies?

Probe reasons to see if they are happy to rely on demand options, have affordability concerns etc

What risks do you think there are with demand or supply options? Are these risks acceptable?

Probe to see if they identify one type as more risky than others

Should they prioritise one type of option over another?

How do you think Bournemouth Water should balance the plan in terms of delivering environmental improvements and the risk of water shortages

Probe reasons to see if they are happy to risk water restrictions to protect the environment

Are there any circumstances when you think the environment should be prioritised over water supply or vice versa? Probe to see if they identify any factors eg affordability

Knowing when to invest is also difficult as future demand is uncertain, and some supply options take a long time to build. Bournemouth Water will need to invest.

When do you think Bournemouth Water should invest in additional sources of water – earlier when the requirements are less certain, or wait and see what happens? Probe what influences their views, and whether they recognise that waiting may carry a higher level of risk of water restrictions, or want to get environmental improvements quicker, wait and see what happens with climate change, affordability concerns etc

Are there any situations you can think about, where think investment should be accelerated or deferred? Probe to see if they identify a balance/tipping point where priorities would change e.g. there's a limit to environmental improvements if it impacts on cost/affordability too much or something where environmental damage might mean the environment takes precedent over costs as long as affordability is supported

If needed to help participants understand the timing issues and risks, explore

Delaying investment

- What are the risks? If needed highlight risk of restrictions, detrimental impact on the environment
- What are the benefits? If needed – less uncertainty, avoid un-necessary investment, time to deliver demand reductions

Accelerating investment

- What are the risks? Uncertainty means build things don't need
- What are the benefits? Better resilience, environmental improvements earlier

Return to polls

5 mins (90)

We're now going to return to some of the polls we started with. Having discussed water resources in more detail, can you re-answer the polls

Exercise: Polls (same options as previously):

- (ii) What's your view on water metering?
- (iii) Compulsory metering (making all customers have a meter) for Bournemouth Water customers is
- (iv) How acceptable would it be for your household to be asked to reduce their daily water use by 10 litres (about 7% reduction) by 2030 (or 20 litres by 2050)?

Has the discussions during this session changed your views? How? Probe whether they are more of less supportive of water metering and/or compulsory metering more/less willing to reduce their water consumption

What factors influenced any changes in your views?

General feedback and close

<5 mins (90)

Thank you for your input again.

Explain how the information will be used, where to go to learn more about water resource plans.

Session feedback polls

Thank you and close

Appendix B – Showcards



Bournemouth Water

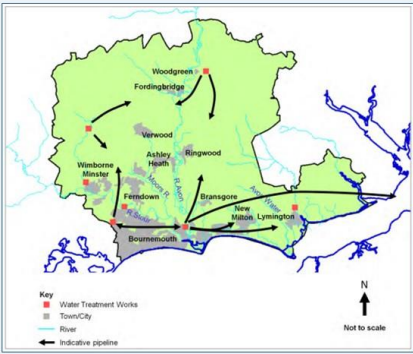
Bournemouth Water Water Resource Management Plan

Focus groups
June 2022



1

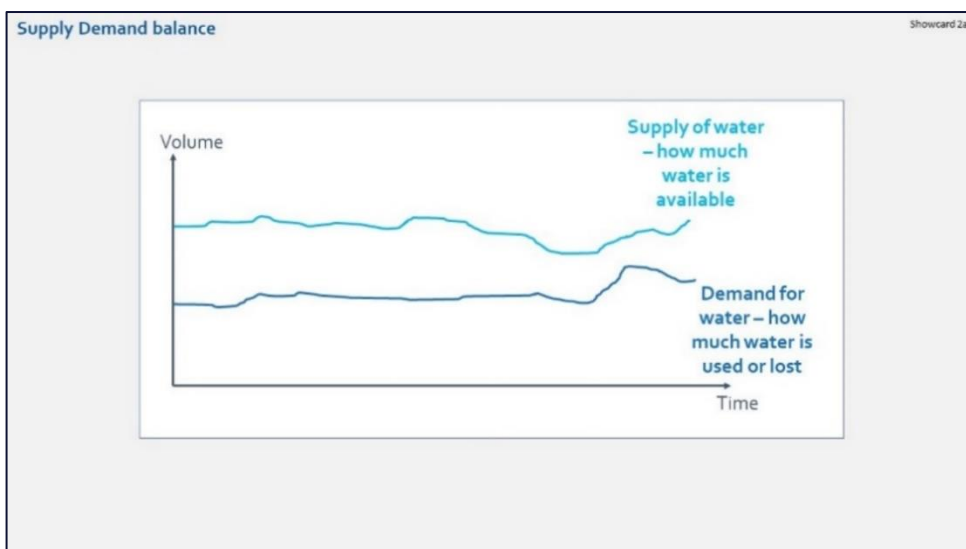
Bournemouth Water – where does our water come from currently?

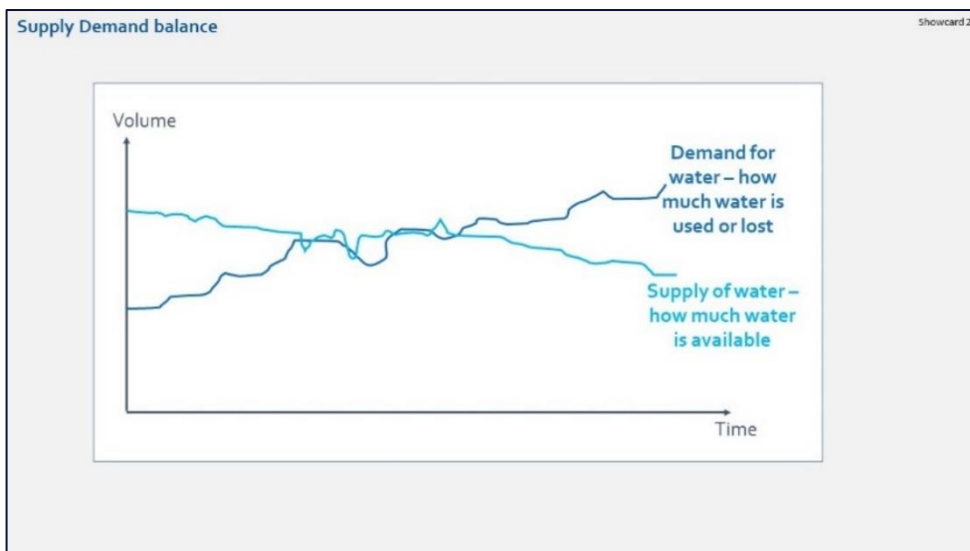
Showcard 1



- 88% of our supply comes from rivers; the Hampshire Avon and the Dorset Stour with two small lakes, which provide short term bankside storage
- The other 12% of our supply comes from groundwater sources, via boreholes
- The River Avon and River Stour, have high 'base flows' which allow us to abstract from these sources throughout the year.
- We pump water from boreholes to help support river flows and can transfer water around the region via a network of pipes.





Water restrictions

Appeal to use less water

Bournemouth Water appeals to customers to use less water to preserve the available water which is running low. They make their requests through local news, radio and social media.

Hosepipe Ban

During a hosepipe ban households cannot use a hosepipe for example to...

- Clean the car
- Water the garden
- Clean windows
- Fill a pond
- Clean driveways

Non-essential Use Ban

Households cannot use hosepipes AND businesses cannot use water for activities such as watering plants, cleaning vehicles and windows, filling swimming pools. This does not affect schools and hospitals.

Drought Permit

In times of drought and in emergencies, water companies can apply to take more water from the environment (e.g. from rivers) – when water levels may already be low, and wildlife affected or harmed.

Severe Restrictions

Severe restrictions are rota cuts or standpipes. This may mean that customers are unable to flush toilets, shower, use washing machines or dishwashers. Drinking water would have to be collected.

Pressures

Protecting & improving the environment

Reductions in the amount of water that can be taken from the River Avon and underground water sources to protect the sensitive chalk streams.

This will restore the flows to near-full rate to benefit fish (primarily salmon) and plant life.

Population growth

The population in the Bournemouth area is predicted to increase by 43,000 by 2050 (9% increase).

Climate change

Hotter summers and reduced frequency of rainfall is predicted in future.


This may both increase the demand for water and reduce the amount of water available e.g. underground water supplies may not be recharged during the winter as they are now.

Improve the resilience of water supplies

Reduce the risk of water shortages and the need for restrictions on water use e.g. rota cuts or bans on non-essential use.

Showcard 4b


Pressures



Protecting & improving the environment


Reductions in the amount of water that can be taken from the River Avon and underground water sources to protect the sensitive chalk streams.

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Population growth


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Hotter summers and reduced frequency of rainfall is predicted in future.

This may both increase the demand for water and reduce the amount of water available e.g. underground water supplies may not be recharged during the winter as they are now.



Improve the resilience of water supplies

Reduce the risk of water shortages and the need for restrictions on water use e.g. rota cuts or bans on non-essential use.

What this means for Bournemouth Water:

- By 2040, Bournemouth Water anticipate that only half the volume of water can be taken from the River Avon (one of the two major sources of water) during summers and dry periods when river flows are low
- By 2050 it is predicted that, without interventions, there may not be enough water to meet the demand from customers and other users

Showcard 5a

Demand options


Compulsory metering

Currently customers can choose to have a water meter installed. In the Bournemouth Water region 74% of households have a meter

Under this option all customers would have a meter installed and would be charged for the water their household uses.

Part of a package of solutions to reduce average water consumption and leakage

Voluntary metering → **Compulsory metering**



Pros

- Metering has been shown to give a 15% reduction in use compared to unmeasured households.
- Faster metering means the environment benefits sooner.
- Customers pay for the water they use - lower water use can lead to lower bills

Cons

- Water savings are not guaranteed
- Needs lots of customers to change their behaviours to use less water and maintain this over time
- May penalise some customers e.g. high water users




Showcard 5b

Demand options

Compulsory metering impacts

If the 50,000 households in the Bournemouth Water region that are currently not metered are moved onto a meter next year, the bill changes have been forecast for combined water and sewerage to understand the impacts.

| Bill impact | Nr. of Households | % of Household | Average Change in Annual Bill (£) |
|------------------------|-------------------|----------------|-----------------------------------|
| Higher Bill with meter | 29,700 | 60% | +30% |
| Lower Bill with meter | 20,200 | 40% | -45% |

| Household type | Higher bills | Lower bills |
|---|--|--|
| Two working adults  | in a small house could see bill increases of 66% or £181 on average | in a large house could see bill reductions of 33% or £222 on average |
| Two adults and two children  | in a small house could see bill increases of 51% or £199 on average | in a large house could see bill reductions of 23% or £184 on average |
| Two retired adults  | in a small bungalow could see bill increases of 42% or £140 on average | in a large house could see bill reductions of 38% or £208 on average |

Bournemouth Water will support customers as much as possible if their bills increased through their affordability support packages – metering is a gateway to access social tariffs, such as WaterSure and WaterCare tariffs

Showcard 5b

Demand options

Compulsory metering impacts

If the 50,000 households in the Bournemouth Water region that are currently not metered are moved onto a meter next year, the bill changes have been forecast for **combined water and sewerage** to understand the impacts.

| Bill impact | Nr. of Households | % of Household | Average Change in Annual Bill (£) |
|------------------------|-------------------|----------------|-----------------------------------|
| Higher Bill with meter | 29,700 | 60% | +30% |
| Lower Bill with meter | 20,200 | 40% | -45% |

Examples: On average.....



Two working adults a small house could see bills increase by 66% or if in a large house could see bills reduce by 33%



A family in a small house could see bills increase by 51% or if in a large house could see bills reduce by 23%



A retired couple in a small bungalow could see bills increase by 42% or if in a large house could see bills reduce by 38%

Bournemouth Water will support customers as much as possible if their bills increased through their affordability support packages – metering is a gateway to access social tariffs, such as WaterSure and WaterCare tariffs

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Showcard 6

The target reduction in water consumption means

- Don't leave taps running
- 4 min showers and very limited baths
- Install water efficient taps, shower heads
- All old toilets with large cisterns replaced with modern dual flush
- Install water efficient appliances – washing machines, dishwashers
- Any internal plumbing leaks fixed (e.g washers, toilet overflows)
- Rainwater storage so that rainwater can be used for external water uses
- Some properties use recycled water to flush toilets

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Showcard 7

Summary of existing supply options that Bournemouth Water are including in their plan

More use of underground water sources



Water is naturally found in rocks under the ground, as rain or river water works its way into these stores. Bournemouth Water is looking at taking water from some different underground sources that will not affect chalk streams

Storing Water underground (aquifer recharge)



Taking water from rivers in wetter months, treating it if needed to prevent contamination, and pumping it into underground rock where it can be stored until needed in drier months. It is then pumped to the surface and retreated.

New reservoir – shared with other water companies



New reservoir at Mendips quarry shared with other water companies in the south west– Mendips quarry will be decommissioned from 2040 and converted to become a new water storage reservoir. The water will be shared with other water companies in the south west.

Moving water around the Bournemouth Water region and between different company areas



Water may be transferred within the Bournemouth Water region or between the different water company areas in the south west. Water may be transferred via dedicated pipelines, or using rivers.

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Showcard 8a

Supply options

Effluent recycling – indirect

Recycling effluent from Poole sewage treatment works by treating the waste water that would otherwise flow out to sea and diverting it to the River Stour.

The treated effluent would then be mixed with river water along 18km of the river before being re-abstracted and treated



Pros

- Reliable source of large volumes of water
- Water is available, even in times of drought
- The treatment works can be built in a modular fashion so more flexible to future changes

Cons

- Requires additional levels of treatment which uses more chemicals and energy
- Advanced treatment is costly to operate, and costs may increase if there are changes to the wastewater
- Not fully flexible as limited by capacity of River Stour to take additional flows and transfer pipe capacity

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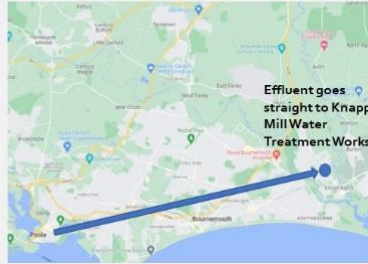
Showcard 8b

Supply options

Effluent recycling – direct

Recycling effluent from Poole sewage treatment works by treating the waste water that would otherwise flow out to sea and pumping it directly to Knapp Mill Water Treatment Works.

The treated effluent is further treated ready for use.



Pros

- Reliable source of large volumes of water
- Water is available, even in times of drought
- The treatment works can be built in a modular fashion so more flexible to future changes

Cons

- Not as flexible to future changes e.g. if demand alters or there are changes to the wastewater
- Requires additional levels of treatment which uses more chemicals and energy
- Advanced treatment that is costly to operate


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Showcard 8c

Supply options

Reservoirs

New reservoirs can be built to store water when it is available.



Pros

- Reliable - provides large volumes of additional water when it's needed, e.g. in summer
- Will deliver the amount of water that is planned for under most conditions
- Once built, they can be used for recreation (e.g. fishing, sailing) and can support a range of wildlife

Cons

- High cost and high carbon impact
- Long time to plan, get permission for, and build
- High impact and disruption on communities, landscape and the natural environment during construction

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Supply options priorities

Ranking exercise

Looking at these four options, can you rank them from 1 – most favoured to 4 least favoured?

Effluent recycling – indirect
Treating the waste water that would otherwise flow out to sea and diverting it to the River Stour.

Effluent recycling – direct
Treating the waste water that would otherwise flow out to sea and pumping it directly to Knapp Mill Water Treatment Works.

Reservoirs
New reservoirs can be built to store water when it is available.

Sharing water
Moving water around the Bournemouth Water region and between different company areas.

Showcard 8d

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Bournemouth Water
Water Resource Management Plan

Focus groups
June 2022

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Assurance

Document Assurance

| Version | Author | Approval | Review |
|---------|----------------|----------------|------------------|
| Draft | Sarah Williams | Sandra Randall | Amanda Markwardt |
| Final | Sarah Williams | Sandra Randall | Amanda Markwardt |
| | | | |
| | | | |

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