

Consumer views on climate adaptation in the water sector – water efficiency

This briefing provides evidence-based policy recommendations on achieving greater water efficiency in Scotland

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Executive Summary

Over the next few decades, climate change will put increasing pressure on Scotland's water resources. The last few summers have seen water scarcity alerts being regularly issued by the Scottish Environment Protection Agency (SEPA). According to Scottish Water's latest projections, without adaptation, by 2050 Scotland could be running short of 240 million litres of water a day. This deficit will be compounded by population growth, particularly in the east, which has fewer renewable water resources to rely upon.¹

Providing the right enabling environment to help consumers to use water wisely and efficiently is an essential part of adaptation planning and building resilience. This will help to ensure that, in years to come, Scotland can reliably meet its water needs in a changing climate, while protecting its natural environment. Sector-wide mobilisation and investment is necessary to successfully meet the challenge ahead, including action to plan for water resources at a catchment scale and to increase the connectivity of supplies. Critically, alongside investment in supply-side infrastructure, consumers have a role to play. Public engagement and education is required to support consumers to change their behaviours to using water more efficiently and wasting less.

On average, each person in Scotland uses around 180 litres of water per day. This figure is high relative to other countries with a similar climate.² In addition, our evidence suggests that, at the moment, most consumers in Scotland are not concerned about how much water is used at home.³ This indicates that a significant shift in public understanding needs to occur to help consumers to recognise the scale of the challenge, and to engage them in making changes.

In this policy briefing, Consumer Scotland sets out its principal recommendations and findings around achieving greater water efficiency, based on deliberative research conducted in 2023-2024 that explored consumer views on climate change adaptation in the water sector.

As demonstrated by the research, when provided with relevant information and given time and space to reflect on the issues in detail, participants support an ambitious approach being taken by Scotland's water sector to adapt to climate change impacts. After learning about the issues, there was a clear appetite from participants to see behavioural change take place at scale, supported by wider, systemic action on the part of Scottish Government, Scottish Water, business and industry. For meaningful change to occur in consumer behaviour, policy leadership, structural interventions, communication and education are essential.

Our key findings and recommendations include:

Water use - Key findings and recommendations

- **Participants in our research saw reducing water demand as a collective effort, relying on actions from the Scottish Government, Scottish Water, industry, businesses and ultimately individuals.**

Key recommendation: A Scottish Government-led strategy for water resources management, and a related water efficiency strategy, is necessary to increase the overall coherence of policy interventions in this area and to demonstrate to consumers how their individual action is connected to a wider, long-term action toward achieving water efficiency across all levels of society.

- **Participants in our research wanted to see transparency and greater communication about the scale of the water scarcity challenge faced by the water sector.**

Key recommendation: Increased investment in education and campaigns around the value of water are key to engaging consumers and helping to win over 'hearts and minds'. To reinforce the message, key actors outside the water sector – such as environmental organisations, schools and educational institutions, product manufacturers and other voices that are trusted by consumers – should be brought in as partners in communicating the importance of sustainable water use. Moreover, there is value in learning from and harmonising messaging with other sectors that are seeking to decarbonise, including the transport and energy sectors.

- **In order to achieve significant reductions in water usage, there is a need for structural interventions that make behaviour change easy, accessible and affordable for consumers.**

Key recommendation: There is a strong case for increased government ambition when it comes to embedding water efficient fittings and appliances into buildings. There is an opportunity to work collaboratively with stakeholders, including Scottish Water, local authorities, developers and homebuilders, to improve planning frameworks to support the aim of more water efficient homes, particularly with the introduction of a mandatory UK-wide water efficiency label in 2025.

Improving water efficiency within homes is a policy intervention with the potential to deliver multiple benefits, from reductions in household carbon emissions, to potential affordability benefits to consumers through reduced energy bills from lower hot water use. However, when using building and product standards to drive change, policymakers must give consideration as to how the burden of compliance with new regulation is shared equitably, with particular attention to avoiding disproportionate detriment on low income and vulnerable consumers.

1. Who we are

1.1 Consumer Scotland is the statutory body for consumers in Scotland. Established by the Consumer Scotland Act 2020, we are accountable to the Scottish Parliament. Consumer Scotland’s purpose is to improve outcomes for current and future consumers and our strategic objectives are:

- to enhance understanding and awareness of consumer issues by strengthening the evidence base
- to serve the needs and aspirations of current and future consumers by inspiring and influencing the public, private and third sectors
- to enable the active participation of consumers in a fairer economy by improving access to information and support

1.2 Consumer Scotland uses data, research and analysis to inform our work on the key issues facing consumers in Scotland. In conjunction with that evidence base we seek a consumer perspective through the application of the consumer principles of access, choice, safety, information, fairness, representation, sustainability and redress.

2. Research methodology

2.1 In 2023, Consumer Scotland commissioned the independent research agency Ipsos to deliver qualitative research on our behalf that would enable us to better understand consumer views on climate change adaptation in the water sector.

2.2 The aims and objectives of the research pointed towards a deliberative methodology being appropriate for the project due to the complex and multi-faceted nature of the topic. Deliberative engagement is about involving the public in decision making in a meaningful way. Through informed discussions with other people about key evidence that is presented to them as a collective, deliberation involves placing diverse perspectives and an understanding of lived experiences at the heart of decision making.

2.3 In this research 41 participants that were broadly reflective of Scotland’s population were recruited to take part in a “public dialogue”. They met over five three-hour online facilitated workshops to consider and answer the key question:

“How should we deal with the impacts that climate change is having – and will have – on water in Scotland?”

2.4 Over the course of the public dialogue, participants listened to presentations from specialists from government and the water sector in Scotland to learn about key issues related to the impacts of climate change on water, wastewater and drainage. They also discussed possible strategies and solutions to help address these impacts, and collectively drew their conclusions together to answer the overarching research question.

- 2.5 Through this research, consumers' views on a range of policy options related to adaptation in the water sector were explored. In addition we sought to understand the support the research participants believe would be required by consumers if water behaviours are to be changed and become more sustainable overall.
- 2.6 This policy briefing draws primarily on findings from workshops one and two, in which participants learned about Scotland's water infrastructure in Scotland, households' water use, and the impacts of climate change on water resources, as well as workshop five, where participants discussed and formed their final conclusions. The findings from workshops three and four, which cover households' Scotland's drainage and sewerage system and how it is being impacted by climate change, are addressed in a separate briefing. An artist illustration which captures some of the key discussion points that emerged in relation to the theme of water use and managing water services is provided on the following page.
- 2.7 The full research report by Ipsos, which contains more detail around the methodology and findings, has been published on Consumer Scotland's website alongside the two policy briefings.

Managing water services & resources

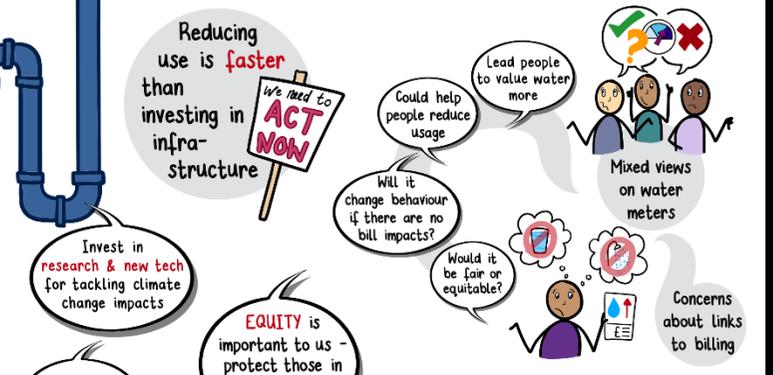
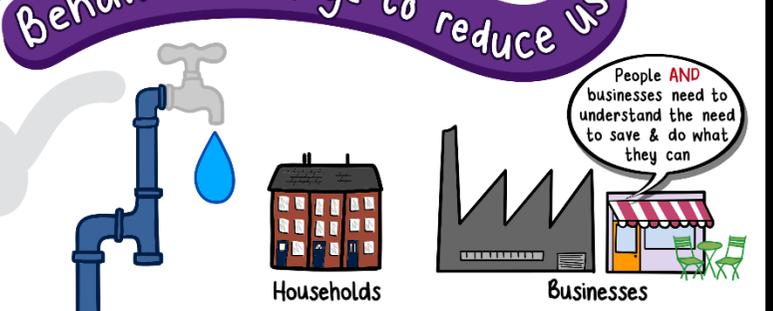
Climate change and Scotland's water

A public dialogue

Behaviour change to reduce use



Dealing with climate change requires infrastructure AND reduced use



3. Key Findings

There is a need for clear, visible leadership to achieve greater water efficiency in Scotland

- 3.1 Participants in our research expressed a desire for the Scottish Government to demonstrate clear, visible leadership to improve water efficiency in Scotland. Specifically, the Scottish Government was seen by participants to have an important role to play in coordinating policy initiatives, setting targets for water reduction, regulating industry, and incentivising businesses, local councils and individuals to make appropriate changes.
- 3.2 To increase consumer understanding of water usage, Consumer Scotland's evidence suggests that consumers need to see their individual action as connected to a wider, long-term strategy toward embedding water efficiency across all levels of society. There was a strongly held view that the burden of adaptation needed to be shared equally, with individual behaviour change supported by wider action taken by businesses and industry.
- 3.3 Importantly, upon presentation of the evidence of the impacts of climate change on Scotland's water supply, the participants taking part in our research saw 'future proofing' Scotland's water resources as a matter of fundamental importance. This was underpinned by a desire to see Scotland investing in changes that would last into the long term, rather than short-term 'sticking plaster' solutions.
- 3.4 In its 2024 Adaptation Plan, Scottish Water makes clear that, without coordinated action to adapt its assets over the next 25 years, by 2050 Scotland could be running short of 240 million litres of water a day.⁴ To deliver a more proactive and coordinated approach to water scarcity management, Consumer Scotland supports the Scottish Government undertaking national water resource planning and, as part of this work, developing an overarching water efficiency strategy. This should set out a plan for how the Scottish Government intends to reduce water demand across sectors and different geographic areas over time.
- 3.5 Reducing water demand will require a collective effort, relying on actions from the Scottish Government, Scottish Water, industry, businesses and consumers. Water resource planning and a related water efficiency strategy provides an opportunity to set out a road map for the changes required, to clearly define collective roles and responsibilities, and to benchmark developments against which future progress can be measured. The water efficiency strategy should include details on how the Scottish Government intends to support consumers (including small businesses) to reduce their water use over time and how this will be measured.

Increased investment in education and campaigns around the value of water, and transparency about the scale of the challenge faced by the water sector in Scotland, is required to engage consumers

- 3.6 Consumers' water saving behaviours tend to be influenced by their past experiences of living with water scarcity, with those who have experienced drought becoming more

‘water conscious’ as a result.⁵ Previous research by Consumer Scotland has found that very few households in Scotland have experienced water scarcity and that awareness of the risks to Scotland’s water resources as a result of climate change is low.⁶ In our deliberative research, when participants learned about the precarity of Scotland’s water resources they were quick to recognise their own role in being able to reduce their personal water use and they were supportive of behavioural change taking place at scale.

- 3.7 Educational campaigns in Scotland should aim to encourage a better overall understanding of the environmental impact of abstracting water for our use, the cost of providing safe drinking water, and the need to conserve it. There is also a need for campaigns to counter widely held misconceptions which act as a barrier to changing habits, such as that Scotland’s high rainfall means there is no need to save water. Participants in the research consistently commented on the importance of transparent communication:

“People need to start being invested and feeling a part of this. The only way is for people to actually be honest with us and tell us what's happening. If people just see we need water meters and more bills, [they'll think] it's all just another way to tax us. I think for us to be sort of shareholders in this, the communication needs to start now.”

- 3.8 Importantly, communicating the issue of water scarcity in an informative, appropriate and engaging way manner will require expertise from beyond the water sector. Providing consumers with a consistent message from numerous sources, framed in different ways – from environmental organisations, schools and educational institutions, alongside retailers and product manufacturers who may be able to run campaigns around more water-efficient use of their products – may help to reinforce the strength of the message and to reach and engage a wider audience.
- 3.9 In order to shift engrained, unsustainable behaviours, a clear link needs to be established between the desired outcome and the factors shaping consumer behaviour. The messages that are likely to resonate most with consumers – helping to win over ‘hearts and minds’ – tend to be those that make the issue of water scarcity feel real and imminent, while appealing to people’s values, concerns and lived experience. For example, with the current concern around energy bills, evidence from the Consumer Council for Water suggests that messages around energy savings from reductions in hot water use are likely to resonate with consumers.⁷
- 3.10 For participants in our deliberative research who did report making an effort to conserve water, one of their key motivating factors was saving money on their energy bill through minimising their hot water use. Similarly, in Consumer Scotland’s 2023 net zero survey, over a quarter (27%) of consumers agreed with the statement that that they ‘would only reduce their personal water use if it saved them money’. Enabling a ‘joined up’ provision of water and energy advice could help lead consumers towards a better understanding of some of the benefits of adopting water efficient behaviours, including lower energy bills and lower carbon emissions. The partnership between Home Energy Scotland and Scottish Water, which delivers water saving devices to consumers in more water stressed areas of Scotland, alongside energy efficiency support and funding, sets a precedent that is worth building on in this area.

- 3.11 Overall, there is value to be achieved in harnessing learning from other sectors that are seeking to decarbonise. Relevant case studies could include consumer uptake of electric vehicles or low-carbon technologies for heating homes, such as solar panels and heat pumps. Mapping some of the drivers for these new technologies may help us to understand the messages and actions that tend to motivate ‘early adopters’ of new technologies or habits.
- 3.12 Notably, while the potential for water metering was discussed by research participants, there was not a dominant view in favour of introducing metering for households. Those in support argued that meters for monitoring purposes could help make people more conscious of their water use. Where participants were opposed to meters, the prevailing concern was that meters would eventually be linked to billing and that this would penalise some groups, such as those on low incomes, those with larger families, and those with disabilities or health conditions. Further work is required by government and industry to understand and test how consumer concerns can be addressed. This may include pilot studies to explore the likely impact on different consumer groups and how to avoid the burden falling disproportionately on vulnerable consumers.

Embedding water efficient design into new and older buildings is a policy intervention with the potential to yield multiple benefits for consumers

- 3.13 Participants in our deliberative research were in favour of setting more stringent building standards for water efficiency measures in new build homes. They also favoured setting stricter regulations on manufacturers of white goods to ensure products meet necessary water efficiency standards. Notably, this was a view that strengthened over the course of the deliberative dialogue. If sustained reductions in water demand are to be achieved, there is a strong case for increased ambition in government policy and associated building standards for new development and retrofit.
- 3.14 At the same time, participants within the research expressed concerns that manufacturers and developers would seek to pass the costs of compliance with new regulation onto consumers:
- “I want to see the construction industry [held] to account for where they build houses, how they build houses, [and] businesses using large amounts of water. We cannot put the cost back onto domestic consumers because they can't pay it.”*
- 3.15 We recommend that, when using building and product standards to drive change, policymakers give consideration as to how to share the burden of costs equitably, with particular attention to avoiding disproportionate detriment on low income and vulnerable consumers.
- 3.16 Further opportunities exist to encourage consumers to make positive choices when carrying out home improvements, including the Heat in Buildings Bill which, if passed, will require consumers to invest in retrofit measures to improve energy efficiency and decarbonise home heating systems. There are potential benefits to presenting water efficiency retrofit measures as a desirable add-on to home energy improvements, including

connecting water use to the wider agenda of building greener, more sustainable homes with a lower carbon footprint.

- 3.17 Six percent of all carbon emissions in the UK are associated with water use, and the largest proportion of this - 89% - comes from heating water in homes.⁸ Retrofit programmes can fail to take into account the contribution that water efficiency can make to net zero objectives. If adopted on a large enough scale, retrofitting water efficient devices within homes has the potential to reduce household carbon emissions, at the same time as delivering affordability benefits to consumers through reduced energy bills from lower hot water use.

The introduction of a mandatory water label is a significant opportunity to encourage innovation and greater consumer uptake of water efficient products and appliances

- 3.18 If consumers are to be encouraged towards the purchase of more water-efficient products, they require access to appropriate information at the point of sale. Product water efficiency labels have been successfully introduced in other countries to help significantly reduce water demand, and there is potential for a UK water efficiency label to deliver similar benefits.⁹ Participants in our deliberative research were in favour of water efficiency labels, which were felt to allow more choice and information about water-efficient products.
- 3.19 The introduction of a mandatory water efficiency label, which the UK government intends to roll-out across the UK in 2025¹⁰, would work particularly well in tandem with a policy mandating stricter building standards for water efficiency measures in new build homes, as mentioned above. Modelling carried out by Energy Saving Trust suggests that a water label linked to stringent building and manufacturing standards could reduce per capita consumption in Scotland by up to 48 litres per day per person (30%) after 25 years. This option – the most ambitious of four scenarios modelled in the paper – is also the most cost effective, with a cost:benefit ratio of 1:31.¹¹
- 3.20 Over time, a mandatory water efficiency label has the potential to empower consumers to make informed purchase choices based on water efficiency ratings, as they would with energy efficiency labels. This potential is maximised when considered alongside other policy interventions, such as investment in educational campaigns, and when linked to minimum standards for water efficiency, set by the government, which are progressively tightened over time. Mandatory labelling and tighter product standards should help to promote technological innovation and result in the gradual phase-out of the most inefficient appliances and fittings from the market.
- 3.21 The introduction of a water label is a key opportunity to improve consumer understanding of the value of saving water. We recommend that the Scottish and UK Governments, manufacturers, retailers, the water sector, energy providers and consumer bodies collaborate on messaging to promote the label. Messaging should emphasise the value of water conservation, and the link between water use, energy costs and the environment, to drive greater uptake of innovative products and sustained behavioural change.

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- ¹ Scottish Water (2024) “Climate Change Adaptation Plan”. Accessed at: <https://indd.adobe.com/view/d63df175-559e-4ec7-a2b5-8227596a710e>
- ² Consumer Scotland (2023) “Supporting sustainable water use among Scotland’s consumers”. Accessed at: <https://consumer.scot/media/wmbbixzt/consumer-scotland-water-efficiency-reportdocx.pdf>
- ³ Consumer Scotland (2023) “Consumers and the transition to net zero”. Accessed at: <https://consumer.scot/media/vzig1umd/consumers-and-the-transition-to-net-zero.pdf>
- ⁴ Scottish Water (2024) “Climate Change Adaptation Plan”. Accessed at: <https://indd.adobe.com/view/d63df175-559e-4ec7-a2b5-8227596a710e>
- ⁵ Consumer Scotland (2023) “Supporting sustainable water use among Scotland’s consumers”. Accessed at: <https://consumer.scot/media/wmbbixzt/consumer-scotland-water-efficiency-reportdocx.pdf>
- ⁶ *Ibid.*
- ⁷ Consumer Council for Water (CCW) (2023) “Desktop review of behavioural change campaigns”. Accessed at: <https://www.ccw.org.uk/app/uploads/2023/05/Desktop-review-of-behaviour-change-campaigns.pdf>
- ⁸ Waterwise (2021) “Net zero and the role of water efficiency”. Accessed at: <https://database.waterwise.org.uk/wp-content/uploads/2021/02/Net-Zero-and-the-role-of-Water-Efficiency-9-2-21.pdf>
- ⁹ IWA Efficient Urban Water Management Specialist Group (2019) “Review of international water efficiency product labelling”. Accessed at: https://iwa-network.org/wp-content/uploads/2019/02/IWA-EUWM-Labelling-Report_Final-002.pdf
- ¹⁰ Joint Devolved Governments (2022) “UK mandatory water efficiency labelling consultation outcome”. Accessed at: <https://www.gov.uk/government/consultations/uk-mandatory-water-efficiency-labelling/outcome/summary-of-responses-and-government-response#next-steps>
- ¹¹ Waterwise (2020) “EST – Water labelling cost-benefit analysis”. Accessed at: <https://database.waterwise.org.uk/knowledge-base/est-water-labelling-options-cost-benefit-analysis-2020/>