

waterwise

UK Water Efficiency Strategy to 2030



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Strategy at a glance

Our water resources are under increasing pressure:

Climate change and population growth are putting increasing pressure on water availability. We also urgently need to improve the health of the water environment.



Using water more efficiently can help us:

- Secure future water supplies and adapt to climate change
- Enable future growth
- Improve the natural environment
- Reach net zero
- Save money and help support people with affordability issues
- Deliver on Sustainable Development Goals

Delivering the strategy could save at least 1,500 million litres per day by 2030 - 600 Olympic swimming pools a day and help us secure more resilient water supplies, enable future growth and support a healthier environment.

If you would like to support the delivery of this strategy or have any questions about it please contact Waterwise on engagement@waterwise.org.uk

UK Water Efficiency Strategy to 2030

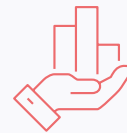
A UK in which all people, homes and organisations are water-efficient

Water demand is in line with what is needed to ensure resilient water supplies and protect the environment.

We believe progressing these 10 Strategic Objectives will help achieve our Vision



Leadership shown on water efficiency



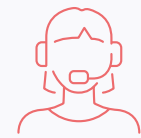
Providing useful and timely information



Increasing awareness of why we need to use water wisely



Life-long learning about the value of water



Water efficiency advice and support is inclusive



New developments are water-efficient



Programmes to retrofit buildings include water efficiency



Water efficient products are being fitted



No leaking toilets or confusing dual-flush buttons



Organisations are more motivated to save water

To read the full objectives see page 17.

While implementing the strategy we will always consider how we can:

Adapt to and mitigate climate change



Protect and enhance the natural environment



Ensure fairness to current and future water users



Safeguard water quality



Implementing the new UK strategy will be overseen by a Strategy Steering Group



Delivery of each Strategic Objective will be led by a Task & Finish Group and tracked against an Action Plan

Foreword

Water deserves to be valued. It gives us life, it protects us from disease, it's embedded in everyday products we use, it helps grow the food we eat, it brings us joy. The reviving splash of water on your face first thing in the morning, a soothing bath at the end of a long week, a refreshing drink on a hot day or after a run, or watching your plants soak it up from a watering can - we enjoy water throughout the day, but how often do we think about it?

While there's been uncertainty about the impact of the Covid pandemic, and whether or not the shift in water use from the workplace to homes we saw in 2020 will continue, what is certain is that there is an urgent need to reduce demand for water. Not just in homes, but across all of society - and we need to see leadership and action to step up to this challenge. Let's not forget, water use was rising even before Covid hit, despite lofty ambitions to bring it down.

We want to see water efficiency actions hand-in-hand with the climate crisis - net zero and climate change mitigation and adaptation. We have set this strategy through to 2030 because it's vital we accelerate progress over the next decade.

Waterwise has prepared this strategy¹. We are extremely grateful to the many individuals and organisations who have contributed through our engagement activity to help shape it. We look forward to working with you to transform the UK into a place in which all people, homes and organisations are water-efficient. Finally, while this is a UK strategy, we hope it will provide inspiration and a framework that others may consider and follow.

Thank you!



Nicci Russell
Managing Director, Waterwise

Who is Waterwise

Waterwise was founded in 2005 and is the leading authority on water efficiency in the UK. We are an independent, not-for-profit campaigning organisation, receiving funding from supporters across and beyond the water sector and wider sponsorship and research projects. We like to be at the front, leading and supporting innovative efforts to realise our mission; that water will be used wisely, every day, everywhere, by everyone.

Get involved

See page 63 for details of how to play a part in delivering this strategy working closely with the UK water sector.

¹ Waterwise developed the strategy in our capacity as an independent organisation which leads on ambition for a water efficient UK. This strategy is itself independent of the UK governments, water sector and other organisations - but was developed through engagement with all parties. Waterwise has its own Strategic Direction Statement through to 2030 that aligns with this strategy - visit [here](#) for details.

Foreword

I very much welcome this UK Water Efficiency Strategy and want to thank Waterwise and Water Efficiency Strategy Steering Group (WESSG) members for all their hard work in preparing this document. The last five years since the first strategy have been very busy and productive for the WESSG, and as a result now is a great time to refresh our priority objectives and set new objectives.

Recent work by the Steering Group has underpinned much of the progress now being made on mandatory water labelling, building regulations, rainwater harvesting and greywater recycling, tackling leaky loos, and pressing for water neutral new development. With the impacts of climate change being increasingly felt, and a cross-sector statutory water consumption target being set under the Environment Act, achieving the vision for a water-efficient UK has never been more important.

Thank you!



Daniel Johns

Managing Director of Water Resources East and former Chair, UK Water Efficiency Strategy Steering Group

I am excited to be joining the Water Efficiency Strategy Steering Group and Water Efficiency Forum as the new Chair. I would like to thank Daniel and all the Steering Group members who have delivered so much over the past five years.

There is still much to do, and the responsibility sits squarely with us as individuals, businesses, communities and as leaders. The good news is that the consultation for the strategy has demonstrated a great deal of energy and enthusiasm from across the industry to make a difference and drive change.

I am pleased to be bringing my experience of the non-household water market to the group to help ensure that all customers – both domestic and non-household – are part of developing solutions to secure our water supplies now and into the future.

I look forward to working with all organisations to deliver this strategy's vision and the ambitious targets it sets out.



Sarah McMath

CEO of MOSL and Chair of the UK Water Efficiency Strategy Steering Group

Water Efficiency Strategy Steering Group (2017-2022)

The Steering Group for the UK Water Efficiency Strategy brought together experts from the UK water industry together with regulators, NGOs, government and academia. The group worked with Waterwise to develop the first strategy published in 2017, and has since worked with government and a range of industry and other partners to take forward the actions it contains - and develop the new strategy. The steering group was chaired by Daniel Johns - originally of Anglian Water - with the secretariat provided by Waterwise.

This new strategy will continue with a streamlined Steering Group and a wider Water Efficiency Forum (see page 62 for details). This will be chaired by Sarah McMath.

Introduction

This UK Water Efficiency Strategy has been developed by Waterwise. It is a Waterwise strategy but it has been developed through engagement with government, regulators, industry and a wide range of stakeholders (see page 64). It sets out a cross-sector strategy to deliver greater water efficiency in the UK by 2030, including:

- **Why we need to reduce demand** - so everyone has an understanding of the challenges we face across the UK (see page 9).
- **The objectives we want to achieve by 2030** - we have set 10 clear strategic objectives that everyone can play a part in achieving. We have outlined the reasons for these, what needs to change, who needs to be involved and how we will track progress (see page 17).
- **How we will monitor delivery of the strategy** - ensuring accountability, providing assurance that the right level of progress is being made and that intended outcomes are being achieved (see page 61).

This strategy is focused on reducing water demand through water efficiency, water reuse and reducing leakage in properties.

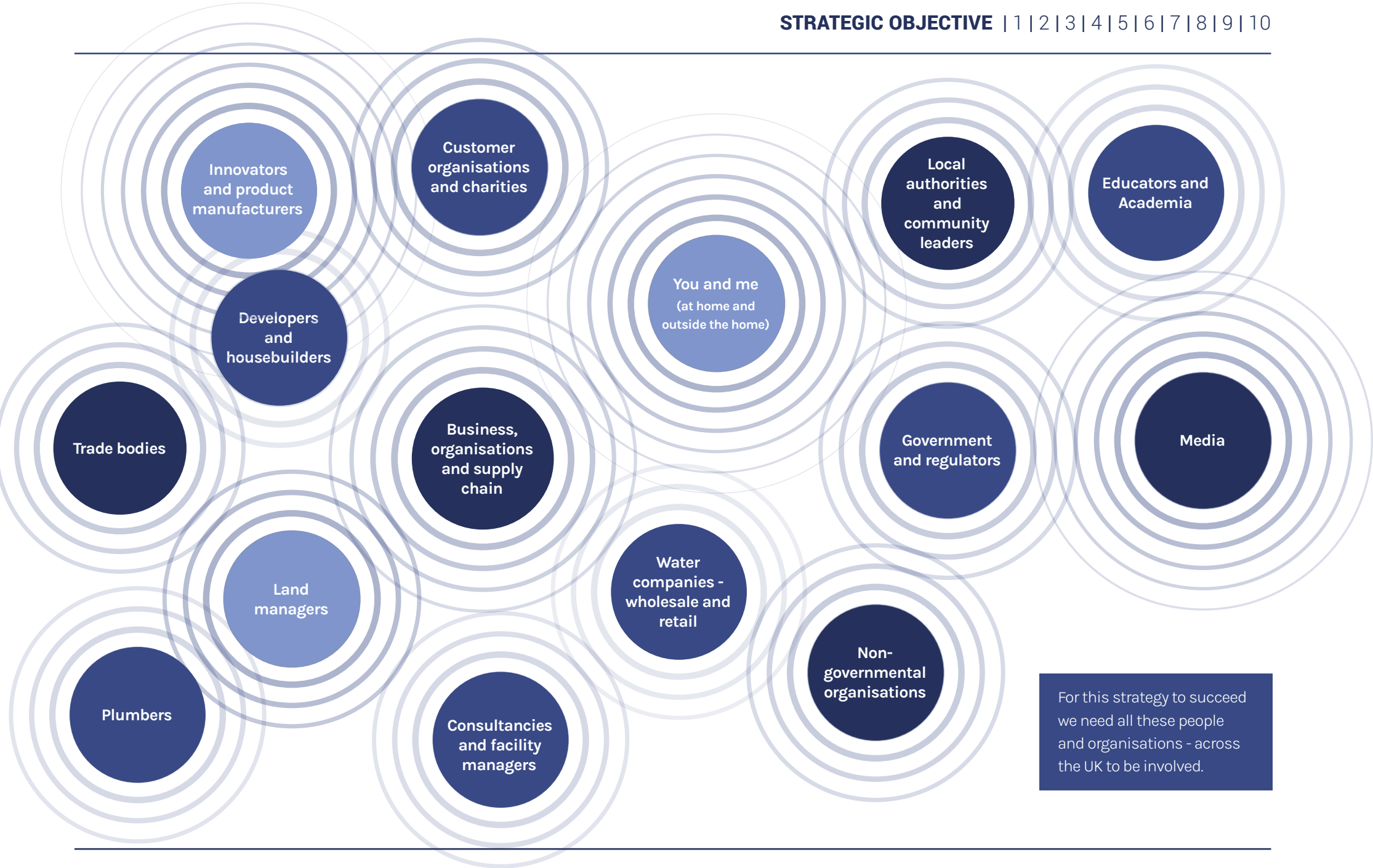
Alongside this it is important there is a twin track approach to ensure we protect our water resources. Other organisations have developed routemaps to reduce water company leakage and there are regional and water company plans that set out potential options for supply side infrastructure such as reservoirs and water transfers - this strategy does not cover those elements.

Who is this strategy relevant to?

The objectives within this strategy are focussed on all water users across the UK. This includes those taking water from the public water supply network (delivered via water companies), but also non-public water supplies, such as private abstractions.

It is a UK wide strategy but we recognise each country is starting from a different position. We have tried to frame the objectives so they are relevant to all UK countries.

Everyone has a part they can play in helping deliver greater water efficiency across the UK. We will be working with all these organisations to implement the strategy. Overleaf you can see the range of people and organisations that this strategy is relevant to. We also hope this document can be useful to those outside the UK who are also working to reduce demand for water globally.



Why we need to reduce water demand

There are a number of important reasons why we need to save water and reduce water demand. We have picked out six below:

1. To secure future water supplies and adapt to climate change
2. To enable future growth
3. To improve the natural environment
4. To help us reach net zero
5. To save money and help support people with affordability issues
6. To deliver on Sustainable Development Goals

1. To secure future water supplies and adapt to climate change

Personal water use in the home has increased by over 60% since the 1960s² and there are an additional 13 million people now living in the UK. This means that overall we are using around twice as much water in UK homes as 60 years ago...more than 5 billion litres more water a day - that's 2,000 Olympic swimming pools! This increase in water demand is already putting pressure on water supplies as we can see from events over the last four years.

The UK experienced a widespread drought in 2018³ with fish kills, water pollution, algal blooms, navigation incidents and wildfires. There were impacts to water supply and agriculture/land management⁴. Water tankering was needed in parts of Scotland⁵ and temporary water use bans were introduced in Northern Ireland.

More recently, hot weather periods, combined with changing water use due to Covid-19, has meant that in summer 2020 and 2021 we have seen water demand spike by 40% in some parts of Scotland⁶ and record levels of water demand recorded in Wales⁷ and England⁸. These peak demand events have posed challenges for water companies in maintaining water supplies. In Northern Ireland drought orders were applied for in 2021 after a prolonged dry period⁹, although they were not actually implemented.

In 2022 we have again seen records broken for hot weather as well as for prolonged dry weather. This has led to water supply demand challenges across the UK with hosepipe bans being introduced in several areas.

2. www.ofwat.gov.uk/wp-content/uploads/2018/05/The-long-term-potential-for-deep-reductions-in-household-water-demand-report-by-Artesia-Consulting.pdf

3. rmetsonline.wiley.com/doi/10.1002/wea.4003 and [The 2018/2019 drought in the UK: a hydrological appraisal \(nerc.ac.uk\)](https://www.nerc.ac.uk/news/2018/2019-drought-in-the-uk-a-hydrological-appraisal)

4. [archive \(nfonline.com\)](https://archive.nfonline.com)

5. www.heraldscotland.com/news/homenews/19894612.researchers-launch-probe-concerns-drought-rain-soaked-scotland/

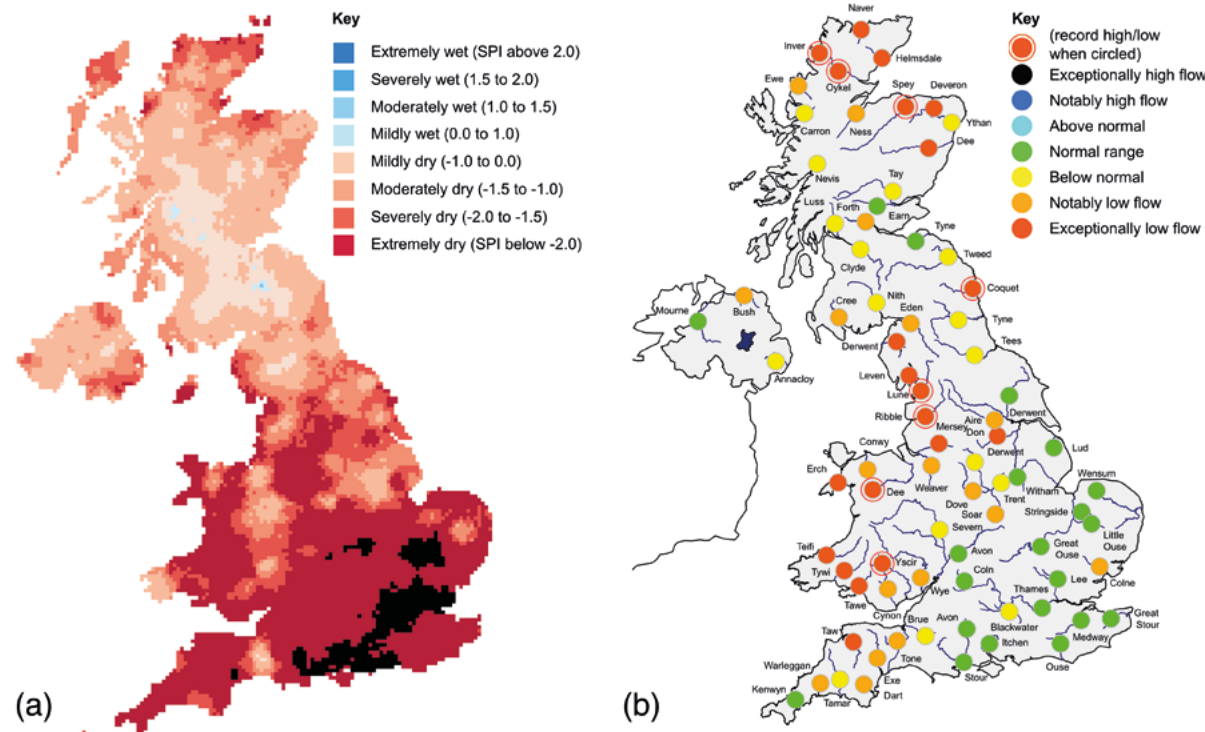
6. www.bbc.co.uk/news/uk-scotland-57900538

7. www.southwalesargus.co.uk/news/19456346.water-shortage-fears-amid-heatwave-staycation-surge/

8. www.water.org.uk/news-item/everyone-urged-to-save-water-during-nationwide-heatwave/

9. www.niwater.com/droughtorder/

The 2018/2019 drought in the UK: a hydrological appraisal



The figure shows (a) Standardised Precipitation Index (SPI-1) for June 2018 and (b) Mean river flows June–July 2018.

We know that climate change is changing rainfall patterns and increasing the frequency and severity of high temperature events and drought, putting more stress on our water supplies^{10/11}. Reducing the demand for water amongst all users and sectors will help us adapt to these changes and make us more resilient to them. Of the range of climate change adaptation measures highlighted by the Climate Change Committee, water efficiency measures are amongst the most cost-effective actions to take, with some of the highest cost-benefit ratios.¹²

The latest evidence¹³ indicates that, if there was no action England faces a potential water deficit, by 2050, of over 4,000 Ml/d (million litres a day). If we want secure future water supplies over half of that deficit is earmarked to be met by reducing water use and leakage, including nearly 1,000 Ml/d from water efficiency actions.

10. researchbriefings.files.parliament.uk/documents/POST-PB-0040/POST-PB-0040.pdf

11. assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1047003/climate-change-risk-assessment-2022.pdf

12. www.theccc.org.uk/wp-content/uploads/2021/07/Independent-Assessment-of-UK-Climate-Risk-Advice-to-Govt-for-CCRA3-CCC.pdf

13. www.gov.uk/government/publications/meeting-our-future-water-needs-a-national-framework-for-water-resources

2. To enable future growth

Without action to reduce water demand there is an increasing risk that future housing and business growth will be increasingly constrained by water availability. We are already starting to see this.

In parts of Sussex environmental concerns mean that new development is not being permitted unless it can be shown not to increase water demand¹⁴ and there are studies looking at whether the planned major Oxford-Cambridge development could be made water demand neutral. Many catchments in south east England have no water available for new abstraction, impacting farmers looking to expand their businesses¹⁵, while in Scotland some key centres for whisky production are potential hotspots for future water scarcity. Emerging water-hungry energy sources such as hydrogen could increase future¹⁶ UK water demand by as much as 5%¹⁷, and regionally the figure could be as high at 15-20%.

3. To improve the natural environment

Over 10% of our freshwater and wetland species are threatened with extinction in the UK¹⁸ and concern over the impact of water abstraction on precious habitats, such as globally rare chalk streams¹⁹ in East Anglia and south east England, is growing along with calls for action and commitments to do something about it²⁰.

In Wales, Scotland and Northern Ireland it matters too. Rivers, lakes and wetlands support a huge variety of species, from salmon and otter, to insects (such as damselfly) and plants. These ecosystems and species rely on sufficient water in the environment. Taking less water when ecosystems and species are most vulnerable, such as at times of low flows, helps them be more resilient to increasing pressures²¹. Reducing water demand helps by reducing current or future abstraction pressure on the natural environment. Every litre saved is more water left in the environment. A thriving environment is also good for our own well-being; Natural England found that almost nine in 10 of adults in England report that being in nature makes them very happy.²²

14. www.horsham.gov.uk/planning/water-neutrality-in-horsham-district

15. mosl.co.uk/market-insight/market-performance/environmental-impact/water-resource-zones-wrzs

16. www.paconsulting.com/newsroom/expert-opinion/the-water-report-the-water-industry-in-a-hydrogen-economy-12-july-2021/

17. Mapping future water scarcity in a water abundant nation: Near-term projections for Scotland

18. www.wildlifetrusts.org/water

19. s3.eu-west-2.amazonaws.com/assets.therivertrust.org/Legacy-uploads/Chalk-streams-dossier_June-2019_FINAL_FINAL-1.pdf

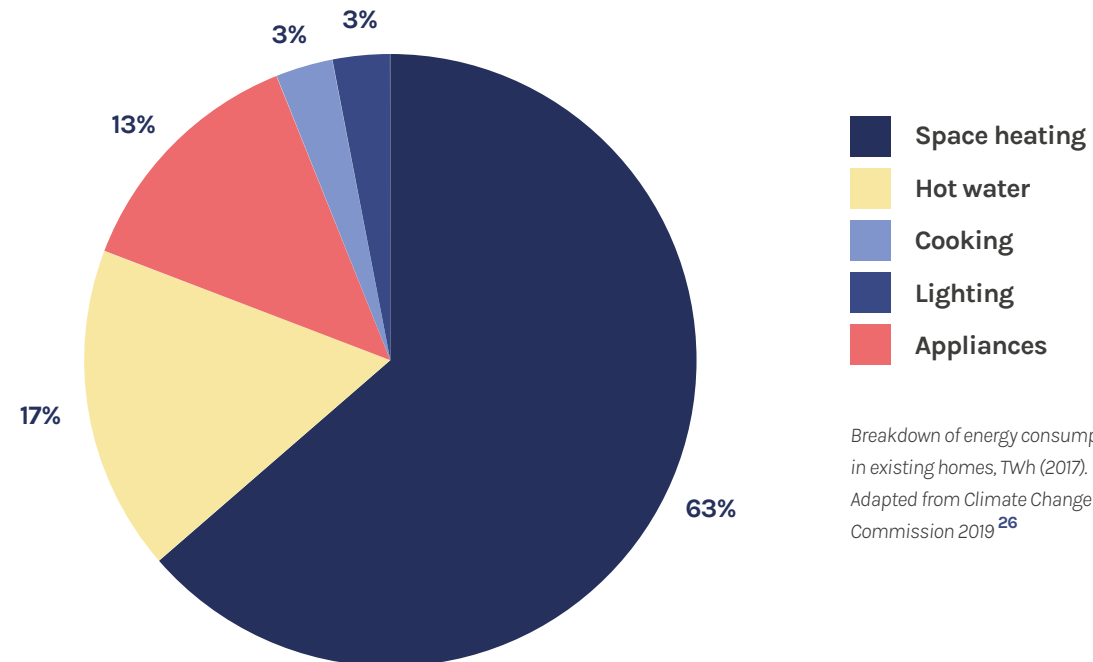
20. www.water.org.uk/news-item/water-companies-pledge-to-protect-rare-chalk-streams/

21. naturalresources.wales/evidence-and-data/research-and-reports/state-of-natural-resources-report-sonarr-for-wales-2020/sonarr2020-our-assessment/cross-cutting-themes/water-efficiency/?lang=en

22. www.gov.uk/government/news/public-love-for-nature-during-covid-19-highlighted-by-new-survey

4. To help us reach net zero

Every litre of water we use has an energy and carbon footprint, so if we use less water we reduce energy use and greenhouse gas (GHG) emissions²³. Around 5-6% of UK GHG emissions derive from our use of water so even modest savings can really help us get to net zero. Around 10% of these water-related emissions are from water companies supplying water and removing and treating wastewater²⁴. The sector has committed to reaching net zero by 2030 for its operational emissions²⁵. The other 90% of emissions come from water use in our homes and businesses so savings here are critical and can be delivered through greater water efficiency, especially over the next 10-15 years before energy supplies are fully decarbonised.



23. www.waterwise.org.uk/wp-content/uploads/2021/02/Net-Zero-and-the-role-of-Water-Efficiency-9-2-21.pdf

24. discoverwater.co.uk/energy-emissions

25. www.water.org.uk/routemap2030/

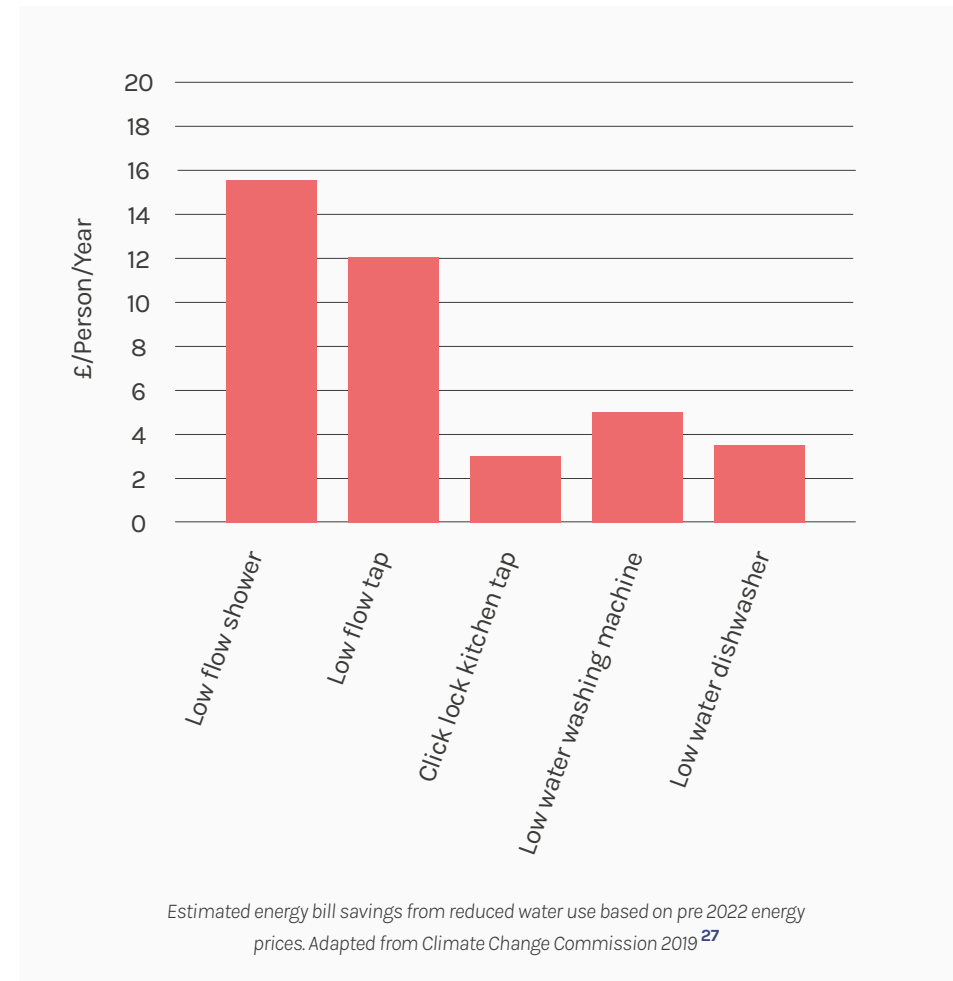
26. www.theccc.org.uk/publication/uk-housing-fit-for-the-future

5. To save money and help support people with affordability issues

Saving water saves money for the increasing proportion of water customers on a metered tariff. Even homes not on a meter can save money by reducing hot water use, thereby lowering energy bills.

Furthermore, at a societal level, reducing water demand can also help avoid, or delay, the need for water companies to invest more money (which we ultimately pay for) in supply-side interventions such as new reservoirs, desalination plants or water transfers. Research from California found that accelerated meter roll-out and tripling spend on water efficiency reduced water utility spend and reduced customer bills by between 3 and 19%²⁸.

In 2021 the Consumer Council for Water (CCW) published a review of water affordability²⁹. It encouraged water companies to take a more proactive approach to helping customers access savings through water efficiency. It recommended that companies should monitor their customers' water consumption in order to identify those in need of support - for example, customers whose usage is high due to leakage, or unusually low from self-rationing - and make an appropriate intervention. It recommended that water companies should ensure that water efficiency forms part of their affordability strategies by linking in messaging to raise the profile of opportunities to save water and money.



27. www.theccc.org.uk/publication/uk-housing-fit-for-the-future

28. www.calwater.com/docs/conservation/Economic-Value-of-Water-Efficiency-Lower-Water-Bills.pdf

29. www.ccwater.org.uk/wp-content/uploads/2021/05/Independent-review-of-water-affordability.pdf

6. To deliver Sustainable Development Goals

The United Nations Sustainable Development Goals (SDGs) are a universal call to action to end poverty, protect the planet and make sure that all people enjoy peace and prosperity. The UK governments have committed to supporting these goals - for example through the 25 Year Environment Plan in England³⁰ and the Well Being of Future Generations Act in Wales³¹. Many of the 17 goals link to the water environment, but in particular water efficiency supports goal 6, clean water and sanitation³² and goal 12, responsible consumption and production.³³

Thinking about water in respect to the circular economy is a good way for us to achieve these ambitions.

“The ultimate goal of a circular economy is to design out waste. It’s about responsible production where businesses which supply products and services get the maximum life and value from the natural resources used to make them”³⁴ - we must do this with water.

6 CLEAN WATER AND SANITATION



Goal 6 includes targets by 2030 to:

- Substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Goal 12 includes targets by 2030 to:

- Achieve the sustainable management and efficient use of natural resources;
- Substantially reduce waste generation through prevention, reduction, recycling and reuse; and
- Ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.

30. Government 25 Year Environment Plan


31. www.futuregenerations.wales/about-us/future-generations-act/

32. UN Sustainable Development Goal 6

33. UN Sustainable Development Goal 12

34. www.zerowastescotland.org.uk/circular-economy/about

Why we need a new UK Water Efficiency Strategy

Recognising the need to drive greater water efficiency, Waterwise published the first **UK Water Efficiency Strategy**  in 2017 with collaborative input from a wide range of organisations including water companies, businesses, regulators and consumer groups. The purpose of the first five year strategy was to raise ambition and delivery on water efficiency in the UK, and it included an ambitious Vision of 'a UK in which all people, homes and businesses are water-efficient'.

The 2017 strategy has benefited from a very active Steering Group that has helped support the delivery of many of its proposed actions³⁵. Key achievements since 2017 include:

- Building the evidence base for mandatory water efficiency labelling of water-using products and government committing to implement it.
- Raising the issue of leaky loos with bathroom manufacturers and them committing to design them out.
- Highlighting the lack of regulatory incentives for non-household water efficiency both within the water sector and for water using organisations.
- Multiple UK-wide water efficiency campaigns with increasing reach - for example Waterwise's Water Saving Week, Water Makes it Possible and Pledge, and Water UK's Water's Worth Saving.
- Updating the evidence base on the costs and benefits of rainwater harvesting and developing guidance on water neutral development.

However, it is very evident that much more needs to be done if we are to realise the important benefits of water efficiency set out earlier. The Covid pandemic has highlighted the importance of water for hygiene and well-being, and has also pushed overall water demand up: and we need to get back on track. Specifically, we need to get on a sustained pathway of reduced use.

During summer 2021 Waterwise undertook an initial consultation³⁶. This overwhelmingly confirmed that stakeholders believed we needed to do more to tackle the risk of water scarcity and that we needed to develop a new strategy. They fed back that the new strategy should:

- Retain the same Vision;
- Remain UK wide;
- Have a longer-term horizon - 2030 - and include Strategic Objectives that set out what we want to achieve; and
- Be supported by a shorter-term Action Plan that is kept under review.

It was also clear from that consultation that stakeholders believe a wide range of organisations need to collaborate to achieve success. This aligns with the findings of public attitude surveys³⁷. The consultation on the draft strategy (see **Appendix A**) also supported this - a wide range of organisations responded, and their feedback has influenced this final document. The new strategy, set out in the following pages, provides a tool for helping to foster that collaboration around a common vision, objectives and set of actions.

35. www.waterwise.org.uk/knowledge-base/waterwise-review-of-the-2017-uk-water-efficiency-strategy-june-2021

36. www.waterwise.org.uk/knowledge-base/water-efficiency-strategy-2-0-summary-of-consultation-responses

37. www.ofwat.gov.uk/wp-content/uploads/2022/04/Customer-spotlight_Peoples-views-and-experiences-of-water_Final-report.pdf

The new UK Water Efficiency Strategy to 2030

Our new vision is:

A UK in which all people, homes and organisations are water-efficient.

In essence it is the same vision as the 2017 strategy, with one small change to reflect that this is wider than just businesses - we want all organisations including schools, community groups, NHS, charities, local authorities and governments to play a part to realise the vision.

Working with a range of stakeholders, we have developed a set of 10 strategic objectives which together underpin and support the delivery of the vision - see Table 1. These objectives are the things we want to see by 2030, and they express what success would look like.

For each strategic objective we set out in the pages below:

- **Why it is important**



- **What needs to change**



- **Who are the key players**



- **How we will track progress**



In delivering the strategy and its objectives, it is important that we also bear in mind that we are contributing to, and hopefully influencing, the delivery of a number of important cross-cutting benefits including:

- **Adapting to and mitigating climate change**
- **Protecting and enhancing the natural environment**
- **Fairness to current and future users**
- **Safeguarding water quality**

These cross-cutting benefits are essentially the key drivers behind why we need to make progress on water efficiency and deliver this strategy so it is important we consider our impact on each of these while working towards our objectives.

We have also included a number of short case studies that showcase good practice linked to that objective.

Table 1 - Our 10 Strategic Objectives (SO) for the new strategy

Water demand is in line with what is needed to ensure resilient water supplies and protect the environment.

 <p>Strategic Objective 1 All UK Governments and regulators show clear, visible leadership for water efficiency and reflect this in their policy and regulatory frameworks.</p>	 <p>Strategic Objective 6 All new developments are much more water-efficient and are water neutral in areas with current or future water availability challenges.</p>
 <p>Strategic Objective 2 People and organisations have access to useful and timely information on their water consumption and potential for savings.</p>	 <p>Strategic Objective 7 Water efficiency measures are included in building retrofit programmes, including to achieve net zero.</p>
 <p>Strategic Objective 3 People and organisations are aware of why we need to use water wisely and how to do it and are taking action. Water-saving campaigns are effective; consistently evaluated – and the learnings are shared and used.</p>	 <p>Strategic Objective 8 People and organisations are fitting water-efficient products and making use of a mandatory water efficiency label. The take up of innovative water-saving products is increasing.</p>
 <p>Strategic Objective 4 People value water through life-long learning about water and how to use it wisely.</p>	 <p>Strategic Objective 9 Leaking toilets and confusing dual-flush buttons are a thing of the past.</p>
 <p>Strategic Objective 5 Water efficiency advice and support is inclusive and is helping people in vulnerable circumstances, including in financial hardship.</p>	 <p>Strategic Objective 10 Organisations are more motivated to save water and the delivery of water-saving advice and support to them is working well.</p>



Strategic Objective **ONE**



All UK Governments and regulators show clear, visible leadership for water efficiency and reflect this in their policy and regulatory frameworks.

1. Why is it important?

Reducing water demand is a collective effort, relying on actions from water suppliers and ultimately water users - all of us. However, success is also dependent on visible leadership from government and regulators coupled with policy and regulatory frameworks that support water efficiency.

Many of the specific measures that can help reduce water demand set out in this strategy link to policy and regulatory levers. For example, setting ambitious standards for new development (SO6); mandatory product efficiency labelling (SO8); joined-up retrofit strategy (SO7); faster roll-out of smart metering (SO2); and a regulatory regime that supports non-household water saving alongside households (SO10).

2. What needs to change?

- We want to see headline water efficiency commitments from the UK and devolved governments in the form of a clear statement and/or ambitious statutory target. These must be focussed on both household and non-household water users.
- We want evidence that each government is bringing forward the supportive policies that are needed to reduce water demand (see above) in line with statutory and other commitments.
- We want the UK and devolved governments to each set up an (independent) expert group that will provide advice to its Ministers on whether progress is sufficient and, if not, what more needs to be done - and we need governments to take recommendations from experts seriously.
- We want all water regulators to prioritise water efficiency not only in their strategic narratives but also in their regulatory frameworks and cost and delivery incentives - moving from words to deeds.
- We see these as key enablers for the strategy and therefore would like a timeline of when actions will be taken.

3. Who are the key players?



This objective relies primarily on the four UK governments and their environmental regulators and economic water regulators.

However, in addition the following are important;

- Government advisors such as the National Infrastructure Commission, National Infrastructure Commission Wales and the Climate Change Committee.
- Water UK.
- Policy and regulatory advocacy organisations such as Waterwise, Wildlife and Countryside Link, Wales Environment Link, Scottish Environment Link, Green Alliance and CIWEM.
- Parliamentary bodies, including relevant scrutiny committees.

4. How we will track progress



We can use the four tests in Section 2 above as our measure of whether this objective is being realised.

- Is there a clear government commitment to water efficiency in the form of a statement and/or ambitious statutory target?
- Is there evidence that each government is progressing and funding the supportive policies that are needed to reduce water demand?
- Is there an (independent) expert group that is reviewing progress and advising Ministers where more action is needed? - and are Ministers listening to its advice.
- Are water regulators prioritising water efficiency and are there sufficient incentives included in regulatory frameworks?



CASE STUDY

Defra response to the need to reduce water demand in England

National scale assessments in England, undertaken between 2018³⁸ and 2020³⁹, highlighted a significant shortfall in water availability in England if we want resilient water supplies and a healthy environment - over 4 billion litres per day. In response to this, since 2021 Defra has:

- Set out in its **Strategic Policy Statement** to Ofwat that at least half of the shortfall should be met through enhanced water sector efforts to halve leakage by 2050 and to contribute to reducing household water consumption to 110 litres per person per day (l/p/d) by 2050⁴⁰.
- Announced a number of **supportive policies**, including mandatory water labelling and a roadmap to more water-efficient buildings⁴¹.

- Consulted on a proposal for a **new statutory national demand reduction target** linked to the Environment Act 2021⁴². The target will include regular tracking of progress and reporting of where more action is needed.

As a campaigning organisation Waterwise would like to see more (see the December 2021 SWDRG Chair's letter to Ministers⁴³, for example), and for demand reduction expectations linked to the national target to be on all abstractors not just the public water supply. However, the combination of a national level government commitment/target; supportive policy announcements and a regular review of progress as part of the requirements of the Environment Act are all positive steps.

38. nic.org.uk/app/uploads/NIC-Preparing-for-a-Drier-Future-26-April-2018.pdf

39. www.gov.uk/government/publications/meeting-our-future-water-needs-a-national-framework-for-water-resources

40. www.gov.uk/government/publications/strategic-policy-statement-to-ofwat-incorporating-social-and-environmental-guidance/february-2022-the-governments-strategic-priorities-for-ofwat

41. questions-statements.parliament.uk/written-statements/detail/2021-07-01/hcws140

42. consult.defra.gov.uk/natural-environment-policy/consultation-on-environmental-targets/

43. www.waterwise.org.uk/wp-content/uploads/2021/12/SWDRG-Chairs-Letter-to-Ministers-regulators-and-the-water-industry-December-2021-FINALdocx-2.pdf



Strategic Objective

TWO



People and organisations have access to useful and timely information on their water consumption and potential for savings.

1. Why is it important?

As Peter Drucker famously said, “If we can’t measure it we can’t manage it”.

Without useful and timely data on water use it is difficult for the general public and organisations to acknowledge and appreciate the amount of water they are using or can save. This is problematic for water efficiency because knowing how much water you are using and how much you could save is a significant motivator for sustained action and behaviour change⁴⁴.

Understanding how much water is being used, including where and when, can help water companies manage their network better through effective targeting of water-saving and leakage reduction interventions^{45/46}. Many large organisations are now targeting carbon reductions and emissions, and understanding water consumption can help provide opportunities for both energy and water use reduction. There are significant opportunities for savings including leakage in properties - both homes and organisations. Information of this kind will also enable the water-saving impact to be evaluated with greater certainty, thus informing the case for future investment.

Evidence from smart meter roll-outs and from behavioural studies shows that provision of timely, useful data on water use helps raise awareness and deliver significant water savings^{47/48/49/50}. This in turn will help ensure more water is kept in the natural environment and also reduce carbon emissions associated with supplying water and its uses in homes and organisations across the UK.

2. What needs to change?

- We need to speed up the roll-out of smart household and non-household metering and monitoring technology that can capture useful, timely consumption and leakage data.
- We need to use the data to draw insights that inform, and help justify and prioritise demand management investment and action, for example leakage and behaviour change initiatives in homes and organisations.
- We need to translate the data into clear, attractive and easy-to-understand and accessible formats that put useful information in the hands of all water users, supported by targeted advice and support to help them save water.
- We need to make sure that communities not on the public water supply system are also supported.

44. www.ofwat.gov.uk/wp-content/uploads/2022/04/Customer-spotlight_Peoples-views-and-experiences-of-water_Final-report.pdf

45. www.water.org.uk/news-item/milestone-leakage-routemap-to-revolutionise-the-reduction-of-leakage-from-pipes/?mc_cid=14e5c1a21d&mc_eid=bc7fd47683

46. mosl.co.uk/news-and-events/news/enhanced-metering-research-report-published

47. www.waterwise.org.uk/knowledge-base/smart-metering-and-the-climate-emergency-2021/

48. www.waterwise.org.uk/knowledge-base/public-attitudestowards-smart-meters/

49. www.surrey.ac.uk/research-projects/showering-smartly-market-acceptance-sustainability-led-technology-reduce-water-energy-carbon

50. www.thameswater.co.uk/about-us/newsroom/latest-news/2021/apr/smart-water-meter-milestone

3. Who are the key players?



This objective will largely be delivered by the water industry. However, the industry will not be able to deliver it without the following stakeholders:

- Government and regulators supporting the roll-out and use of innovation such as smart water meters to measure consumption and leakage.
- Consumer groups working with the water industry to ensure that customers' needs and interests are central and that they benefit.
- MOSL and other relevant stakeholders continuing to champion what needs to be done for non-household customers.
- Utilities, including technology companies/SMEs, trade associations and media/communications organisations.

4. How we will track progress



Potential ways that we can track progress against this objective include:

- Roll-out of “smart” meters using data from water company water resource management plan annual reports.
- Longitudinal surveys such as those being undertaken by Defra, Welsh Government, Scottish Water and CCW/Ofwat, showing that an increasing number of people think about their water use, know how much water they are using and have access to and engage with useful, timely data.

CASE STUDY

Thames Water Smart Metering Insights

Thames Water has rolled out over 650,000 smart water meters and is seeing household usage reductions of between 12-17% post installation. This saving relates to households moving from unmeasured to smart meters. Those already on a meter moving to a smart meter can see savings - but below this range. Thames Water is using the high resolution data from these meters to identify and support high water-using customers, with water-saving visits saving a further 10% - and has also been able to spot where customers may have a leak on their property, which shows up as continuous flow. Around 8% of households show continuous flow and incredibly over 25% of water supplied to non-household customers is continuous flow and may be leaking!





Strategic Objective **THREE**



People and organisations are aware of why we need to use water wisely and how to do it and are taking action. Water-saving campaigns are effective; consistently evaluated – and the learnings are shared and used.

1. Why is it important?

If our aim is to reduce the demand for water, then it is important that everyone understands why we need to use water wisely as well as how we can play our part. However, in a 2022 CCW and Ofwat survey, only a third of people surveyed believed that the UK is vulnerable to water shortages⁵¹.

As there are many factors that influence how people use water - for example, socioeconomic conditions and the weather - the impact of a change in how an individual uses water can be difficult to measure. And as we see in so many areas of our lives, behaviour change can be challenging and gradual.⁵² However, once an individual is supported to reach the awareness stage of intentional behaviour change, they can begin to prepare for change and take action. Once they have made and maintained the change, they may become water efficiency advocates and can be the catalyst to encourage others to do the same, thus accelerating the pace of societal change.⁵³

The regional plans for water resources in England (and parts of Wales) have a high reliance on behaviour change as a way to reduce demand, as do company level water resource plans across the UK. Around half of the 4 billion litres a day potential deficit in England is earmarked to come through leakage reduction and water efficiency.⁵⁴ The water efficiency landscape is at risk of becoming saturated by information awareness campaigns that use reach to demonstrate success, without knowing if demand for water has actually reduced as a result.^{55/56} We are faced with an important challenge relating to their design and evaluation, and if behaviour change is to be achieved, we will need to plan and deliver campaigns that are tailored, effective, and can be evidenced. It is important to reinforce the need to tailor and target, as sometimes behaviour change campaigns can have unintended consequences, both in terms of water use and in reinforcing societal inequities.⁵⁷

2. What needs to change?

- We need to increase awareness of why we need to use water wisely.
- We need to give everyone the tools to be able to take action to reduce their water use at home and within their organisations.
- We need to review temporary use bans - their practical application and how to make sure they are a useable tool if appropriate during high demand events.
- We need a consistent framework for water efficiency engagement across all organisations.
- We need a consistent and independent method of measuring the effectiveness of water-saving campaigns - including a framework for understanding what 'effective' means.
- We need to help innovators in this space, such as SMEs and technology companies, to be able to reach decision makers with new technologies that support behavioural change.

51. www.ofwat.gov.uk/wp-content/uploads/2022/04/Custom-spotlight_Peoples-views-and-experiences-of-water_Final-report.pdf

52. Dolan, P. **Happiness by Design**

53. Examples from Australia of **changing behaviours**

54. www.wcl.org.uk/emerging-regional-water-resources-plans-ten-observations-from-blueprint-for-water.asp

55. www.waterwise.org.uk/knowledge-base/literature-review-learnings-from-previous-pro-water-campaigns-interventions-and-studies-2021/?seq_no=2

56. [ueaeco.github.io/working-papers/papers/cbess/UEA-CBESS-22-01.pdf](https://github.com/ueaeco/working-papers/papers/cbess/UEA-CBESS-22-01.pdf)

57. Dolan & Gallizi 2015, **Like ripples on a pond**: Behavioural spillovers and their implications for research and policy

3. Who are the key players?



Achieving this objective will need wide involvement, not just across the water sector, but reaching into our communities. Some of the organisations and people who need to be involved include:

- Behaviour change and communications experts within the water and energy sectors and academia.
- Political, community, religious and cultural leaders.
- Water sector leadership including companies, regional groups, regulators and operators.
- A range of organisations to support campaigns - from environmental non-governmental organisations such as Waterwise, consumer groups, the education sector, charities, trade bodies, social media influencers and media.
- Innovators - including technology companies/SMEs, utilities, trade associations and media/communications organisations.

4. How we will track progress



Alongside overarching measurements of demand we will know we are making progress on this objective through:

- A longitudinal survey of both the public and organisations.
- The development and use of an agreed evaluation framework for new campaigns and water-saving interventions.
- Evidence of better dissemination and take up of the findings and recommendations.

CASE STUDY

Save our Streams

Using creative ways to change behaviour

In 2021 Affinity Water launched its ambitious customer engagement campaign, SOS: Save Our Streams. Borne from the insight that people care about their environment now more than ever, they elevated the salience of water wastage through high-profile stunts, attention-grabbing adverts and targeted social media activity.

They used a combination of behavioural science and marketing with the aim of encouraging 120,000 customers to sign up to receive tailored communications, advice, gadgets and free leak repairs, smashing that target with over 225,000 signed up and counting. Most importantly though, 85% of people who'd seen the campaign said it made them change their behaviour.

Some of the highlights? A comedy gig in a chalk stream headlined by Sandi Toksvig; a tour of giant bath-tub, Tubatha, around Affinity towns with people queuing up to climb in; a song dedicated to the dual-flush loo; and the 'Chilterns to champions' TV advert screened during the Euros final (watched by 1.2m people in 48 hours) which made the point that the Wembley pitch has the Chiltern chalk streams to thank for keeping it match fit.

Did those people save water? Affinity Water's audited AI model shows 20.25 million litres of water a day were saved as a direct result of the SOS activity.





Strategic Objective **FOUR**



**People value water through
life-long learning about water
and how to use it wisely**

1. Why is it important?



Research with water users shows a disconnect from water and where it comes from, and that there is a difference between what people say and what they do.^{58/59} There is a view that, unlike fossil fuels, there is a never-ending supply of water and its use is without consequences for the environment.

During consultation activities as part of water resource planning, education about water is something both the public and community stakeholders say is an important activity with school visits and activities encouraged⁶⁰. It is often said that 'pester power' works as pupils tell their parents and encourage them to adopt pro-environmental water choices at home.⁶¹

The narrative in the media is often that young people are very aware of environmental impacts and issues, but recent research suggests this isn't the case.⁶² The polling revealed that half of young people felt unsure that their actions would make a difference with just one in five thinking that they might. Increasing engagement about how water use links to the environment amongst young people could help.

Water is a multi-disciplinary topic that links to so many parts of our lives, such as energy, health and food that finding ways to learn more about water and the value of it throughout our lives is important. Learning to turn the tap off when you are first taught to brush your teeth is just the start.

If we want to build long-term behaviour change and develop a society that values water, our freshwater natural capital⁶³, then this learning should continue throughout primary, secondary and tertiary education. It should also be part of our workplace learning and opportunities should exist for communities we are part of to integrate knowledge sharing too.⁶⁴ As adults we can learn about how to be more resilient to climate change in our homes and gardens through using water wisely. Ensuring everyone has had access to learning about water, building knowledge about the risks and uncertainties with water over time⁶⁵, could enable ongoing engagement and greater valuing of this precious resource - so we all see our part in the global story of water.

2. What needs to change?



- Caring about water needs to be a regular part of our education, at school, colleges, in the workplace and in our communities - not a 'one lesson and done' approach.
- Education needs to include information about the risks to the security of our water supplies and environment and how we can mitigate these.
- We need to be able to evaluate and measure the impact of education activities to ensure they are effective.
- We need to change the narrative about the water cycle⁶⁶ so that it is clear that safe drinking water doesn't just fall from the sky and isn't unlimited.

58. CCW sink sense report (see page 44) and video | Garden watering research

59. www.waterwise.org.uk/knowledge-base/public-attitudestowards-smart-meters/?seq_no=2

60. South East Water responsible business plan engagement

61. O'Neill and Buckley, 2018, "Mum, did you just leave that tap running?!" The role of positive pester power in prompting sustainable consumption

62. Hubbub research on young people's attitudes to climate change

63. HM Government 25 Year Environment Plan

64. For example Manchester City Football Club fans learnt about the impacts of drought on football through their partnership with Xylem to deliver a message about valuing water.

65. Gigerenzer, G, 2014: Risk Savvy - How to make good decisions

66. www.ofwat.gov.uk/wp-content/uploads/2022/04/Custom-spotlight_Peoples-views-and-experiences-of-water_Final-report.pdf

3. Who are the key players?



To achieve this objective we will need to involve those with expertise in education and community engagement, not just within the water sector. The organisations we will work with include:

- Water company education teams.
- Government departments responsible for education - including local authorities.
- Rivers Trusts and similar freshwater environmental organisations.
- Community organisations that engage with young people - e.g. youth clubs, religious organisations, forest schools, Scouts and Guides.
- The Eco-Schools organisation.
- Tertiary education groups such as skills development trade bodies.
- Universities.
- Organisations that build communities of learning.⁶⁷
- Schools and academy trusts.

4. How we will track progress



This area has had limited review or measurement historically, so to measure progress we will:

- Carry out a benchmarking exercise of current curriculums across the UK to track changes over time.
- Work with the education sector and academia to:
 - Create a longitudinal study of young people and attitudes to water
 - Create a survey of schools to measure current content and track change
 - Develop a framework for measuring and evaluating educational activities.

67. For example these could include horticultural organisations, sports groups, faith groups and community groups. This could also be via nature reserves, partnerships with cultural/tourism bodies, and waterside parks.



Dŵr Cymru
Welsh Water

NORTHUMBRIAN
WATER *living water*

CASE STUDY

A time to discover | Dŵr Cymru Welsh Water

Dŵr Cymru Welsh Water has been working to inspire younger generations by teaching them about the value of water. Over the last 20 years more than 600,000 pupils have received school talks or visits to their education centres⁶⁸. The education team include seconded teachers from local schools who are passionate in supporting schools to deliver the curriculum through experiential hands-on learning activities. Lessons are linked to the National curriculum across all key stages and support the National Literacy and Numeracy framework⁶⁹. Through the Wales Water Efficiency Group the company is working with the Welsh Government and others to review content based on new approaches to the curriculum in Wales.

A ripple effect | Northumbrian Water Group

Building on the success and popularity of in-school delivery of the Super Splash Plays and workshops which had to stop as schools closed in 2020 due to the Covid pandemic, NWG quickly pivoted its educational offering to an online platform accessible to teachers, parents and carers of Key Stage 2 children. The aim is to reach 200 schools and 30,000 pupils a year, which would equate to 60,000 litres saved per day.

An innovative, interactive website which explains the principles of the water cycle and water use⁷⁰, it also covers the why and how of reducing water use and the impactful message that small ripples can create big waves. Linking back to the environmental impact of abstracting water for our use, in age-appropriate language and delivery, there are many different activities to discover.

68. Dŵr Cymru Welsh Water won the Waterwise and Environment Agency's 2016 Water Efficiency Award for 'Exemplar Project in Wales', supported by the Welsh Government, for its Wales Schools Outreach Programme.

69. Dŵr Cymru Welsh Water **education programme**
70. www.nwg.co.uk/ripple



Strategic Objective

FIVE



Water efficiency advice and support is inclusive and is helping people in vulnerable circumstances, including in financial hardship

1. Why is it important?



Firstly it's important we are clear about what we mean by vulnerable circumstances. The definition we're using is "someone who due to their personal characteristics, their overall life situation or broader market and economic factors, does not have a reasonable opportunity to access and receive an inclusive experience, which may have a detrimental impact on their health, well-being or finances. This may mean changes are needed to how information, goods and services are designed and provided to protect and safeguard the consumer interest."

Water companies are working to reduce water poverty and highlight water efficiency as an opportunity to make a difference for those who are financially vulnerable.^{71/72} We know that the link between water and energy use also means water efficiency can make an impact on reducing other household bills.⁷³ A Thames Water study looking at the opportunity for water efficiency to help with affordability found that some customers struggling to pay their bills can benefit from a bill reduction of between 8%-17% - equivalent to a saving of between £40 and £166 a year.⁷⁴

For some people, medical conditions or personal circumstances mean they may use more water. We want to ensure water efficiency messages don't impact negatively on someone's well-being, by making people feel they should stop using water.⁷⁵ We should instead be looking at ways we can make sure there are innovative solutions that help them have access to the water they need while reducing wastage.

This strategic objective is wider than challenges with affording water bills and reducing impacts of cost of living crises. It also covers climate justice as a whole, so that the water we do have is shared fairly, and that water efficiency policies, programmes and messages do not reinforce or make worse existing systemic biases against people both with protected characteristics and other characteristics⁷⁶ which make them vulnerable to bias, such as low family income. Protected characteristics are age, disability, gender reassignment, marital or civil partnership status, pregnancy and maternity, race, religion or belief, sex and sexual orientation.

2. What needs to change?



- We need to make sure everyone has access to water efficiency advice and support and that no one is excluded due to their circumstances, including those who have less access to digital technologies.
- We need to work with a diverse range of people so that we develop water efficiency interventions that are inclusive - "nothing about us without us."⁷⁷
- We need to improve the links between water and energy use in the home and ensure a more joined-up approach across organisations working to reduce water and fuel poverty. This includes data-sharing opportunities to identify people and tailor advice.
- Innovative solutions need to be developed to help everyone to be able to use the water they need in their homes as efficiently as possible.

71. WaterUK Public Interest Commitments

72. Examples from Welsh Water, Scottish Water and Northern Ireland Water

73. Energy and carbon effects of water also Net zero and the role of water efficiency

74. Thames Water - Smarter ways out of water poverty (December 2021)

75. Water efficiency and affordability, tackling them in partnership - University of Sussex in Partnership with Southern Water, CCW and Brighton & Hove City Council

76. www.equalityhumanrights.com/en/equality-act/protected-characteristics

77. Origins of this phrase

3. Who are the key players?



To achieve this objective it is important that we are inclusive, with a wide range of consumers and organisations representing their views and having a key role to play. These will include:

- Consumer organisations.
- Experienced third sector and local authority partners delivering support to vulnerable households.⁷⁸
- Organisations campaigning on fuel poverty, disability rights, anti-racism, rights for older people, young people, LGBTQ+ and other protected characteristics.
- Organisations covering climate justice for low-income households.
- Energy retail companies - vulnerability teams.
- Water companies - vulnerability teams.
- Academia.

4. How we will track progress



We will utilise existing records to monitor impacts of the affordability and inclusivity of services along with some new opportunities to evaluate progress:

- CCW Affordability report - ongoing review.
- Water UK Public Interest Commitment reporting.
- Consumer Scotland research on affordability in the Scottish context.
- New measurement options should be developed which could include:
 - Companies to provide statistics on % of customers registered within their vulnerability teams that have received water efficiency information and the water saving achieved.
 - Companies reporting on the number of groups they've engaged with, drawing on protected characteristics and socio-economic status.
 - Reports from organisations working with water companies to deliver home or business visits - e.g. Home Energy Scotland partnership with Scottish Water.
 - Relevant expert groups to carry out audits of water efficiency programmes and feedback on areas of best practice and improvements that can be shared with the sector.
 - Stakeholder mapping of activities to check engagement and increase involvement with consumers directly impacted.
 - Tracking innovations in water technologies that are inclusive.

78. As an example Groundwork has its Green Doctors scheme which delivers home visits to help reduce energy and water bills www.groundwork.org.uk/greendoctor



The voice for water consumers
Llais defnyddwyr dŵr



CASE STUDY

Consumer Council for Water (CCW) Water Affordability Review

In 2021 CCW published its independent review of water affordability⁷⁹. Within this it highlighted that “one opportunity to take action is to ensure that water efficiency forms part of water company affordability strategies by linking messaging and identifying options to provide targeted and enhanced interventions, to take advantage of emerging technologies”.

This review encouraged wholesale water companies to take a more proactive approach to helping customers access savings through water efficiency, by recommending that wholesale water companies in England and Wales:

- Monitor their customers’ water consumption in order to identify those in need of support – for example, people whose usage is high due to leakage, or unusually low from self-rationing – and make an appropriate intervention.
- Offer a long term bill guarantee to provide people, in low-income households with reassurance that, subject to reasonable conditions, their metered bill will never cost more than their current bill - giving them confidence to switch to a meter.
- Provide enhanced interventions, particularly targeting low-income households, and providing financial support to allow them to take advantage of emerging water-efficient technologies. For example, crisis or trust funds could provide support for low-income households towards purchasing water-efficient white goods.
- Ensure that water efficiency forms part of their affordability strategies by linking in messaging to raise the profile of opportunities to save water and money.

79. CCW Independent review of water affordability (2021)



Strategic Objective **SIX**



All new developments are much more water-efficient and are water neutral in areas with current or future water availability challenges

1. Why is it important?

Most of England is classified as seriously water stressed⁸⁰ and we need to address a potential 4 billion litres a day deficit⁸¹ if we want secure water supplies, a healthy environment and to enable future growth. There are also areas in the other UK countries⁸² where ensuring supply can meet current or future demand can be very challenging, and all four UK nations have had challenges to supply in the last few years.

It is important that new development minimises the additional pressure it places on water supplies and the water environment, especially where they are already under stress. To do this all new development needs to be far more water-efficient than current standards require. The cross-sector Future Homes Delivery Plan in England sets out many of the things that are needed, together with a recommended timeline⁸³. One of the key things it includes is water neutrality for new developments.

Water neutrality⁸⁴ means that the additional water demand on the environment arising from a new development is zero. It therefore doesn't add to any existing or future water scarcity challenge. To achieve this, water demand is first minimised through efficient fittings, rainwater harvesting and water reuse⁸⁵. Any remaining additional demand is then offset locally through water saving interventions in the local community. We already take a similar approach with flood risk arising from new development, so why not for water demand?

2. What needs to change?

- We need to see increased ambition in government policy and associated standards for new development when it comes to water efficiency, including in proposed roadmaps⁸⁶. Currently building standards are treated as a ceiling on ambition not a minimum expectation.
- We need local authorities, developers and wholesale water companies collaborating at an early stage to reduce the water demand of new developments, including targeting water neutrality areas with current or future water availability challenges. This should include aiming to reduce build costs through these innovations.
- We need roll-out across the water sector of developer incentive schemes that encourage developers to go further on water efficiency and to achieve water neutrality, such as the new Thames Water incentive scheme⁸⁷. We need to increasingly see non-household water efficiency as a solution to offsetting water neutrality.
- We need to see water reuse and rainwater harvesting interventions as standard in new build properties (household and non-household).

There are links between this objective and objective SO8 on water efficiency product labelling which are also dependent on requirements for new buildings and to objective SO1 on the regulatory framework.

80. www.gov.uk/government/publications/water-stressed-areas-2021-classification

81. www.gov.uk/government/publications/meeting-our-future-water-needs-a-national-framework-for-water-resources

82. www.climateexchange.org.uk/media/3680/cxc-water-scarcity-climate-change-and-land-use-options.pdf

83. irp.cdn-webside.com/bdbb2d99/files/uploaded/FHTF%20Report_COMPACT_update_Dec%202021.pdf

84. www.waterwise.org.uk/knowledge-base/a-review-of-water-neutrality-in-the-uk-2021/

85. www.waterwise.org.uk/knowledge-base/independent-review-of-costs-and-benefits-of-rwh-and-gwr-options-in-the-uk/

86. questions-statements.parliament.uk/written-statements/detail/2021-07-01/hcws140

87. www.thameswater.co.uk/about-us/newsroom/latest-news/2022/feb/rewards-for-developers-who-achieve-water-neutrality

3. Who are the key players?



Delivery of this objective largely relies on government policy and legislation requiring greater ambition when it comes to new development. However, progress will also need the involvement of:

- Local planning authorities.
- Developers, housebuilders and their trade bodies.
- Landscape gardeners and garden designers.
- Wholesale water companies.
- Rainwater harvesting and greywater reuse technology and service providers.
- Associations such as the Royal Town Planning Institute (RTPI), Town and Country Planning Association (TCPA) and National Association of Builders.
- Certification schemes such as BREEAM and sector training such as Supply Chain Sustainability School.

4. How we will track progress



Tracking progress with this objective will be at various tiers:

- We can track whether supportive changes in government policy have been brought in.
- We can review local authority planning expectations and guidance on water demand.
- We can use smart meter data to track consumption in new builds to see if it reduces from current levels.

CASE STUDY

Water Neutrality in Sussex North

Concerns over the impacts of abstraction on an internationally important wildlife site in Sussex led Natural England to issue a position statement objecting to any further development in that water supply area unless it was made water demand neutral⁸⁸.

Developers in the affected areas now have to provide a Water Neutrality Statement setting out how they will achieve water neutrality before planning permission can be granted.

Southern Water is working with local stakeholders and the developers to:

- develop a water neutrality calculator
- rezone water supply zones
- minimise abstraction from sensitive sites
- organise a water neutrality developer day.



WATER EFFICIENCY

WATER REUSE

OFFSETTING

The three stages to achieve water neutrality.



**Horsham
District
Council**

⁸⁸. www.horsham.gov.uk/planning/water-neutrality-in-horsham-district



Strategic Objective **SEVEN**



Water efficiency measures are included in building retrofit programmes, including to achieve net zero

1. Why is it important?

Around 80% of the homes that will exist in 2050 have already been built⁸⁹. So if we want to significantly reduce water demand we must improve water efficiency and reduce wastage in our existing building stock. Evidence from existing water company programmes, following their water-saving home visits which combine advice and replacement of inefficient fittings with water-efficient alternatives, indicates water savings of at least 10% are possible. Even larger savings are possible in non-household organisations such as schools, hospitals, shops and factories. Thames Water found, for example, following around 13,000 business visits, total water use reductions ranging from 5-30% across multiple business categories.

This objective is about targeted water efficiency programmes, but also about helping people make positive choices in homes and organisations when carrying out home improvements - it links closely with strategic objectives 8 and 9.

Many of the water-saving interventions we need to see in existing buildings have the added benefit of also reducing energy use, saving customers money on their energy bills⁹⁰. Heating water (excluding space heating) accounts for 17% of household energy use⁹¹. Around 4-5% of UK greenhouse gas emissions come from how we use water in our homes⁹² so increasing water efficiency in our existing building stock makes sense from a net zero perspective too. A modest 5-6% reduction in water consumption could deliver a bigger decrease in total UK greenhouse gas emissions than was achieved in the entire UK residential sector in either 2017/18 or 2018/19⁹³. Unfortunately, awareness that water-saving can help achieve net zero and tackle climate change is very low amongst the public⁹⁴. Government retrofit programmes often ignore the contribution water-saving can make to net zero⁹⁵.

We need a more joined-up approach to retrofit that considers water use alongside energy, drainage and waste. This was advocated by the Construction Leadership Council in their 2021 National Retrofit Strategy⁹⁶, and supported by Waterwise.

2. What needs to change?

- We need to see a whole building approach to retrofit with much better join up between energy, water use, drainage and waste-saving programmes. Including training for plumbing trades in the new technologies available.
- We need retrofit programmes for all buildings with water-efficient fittings, drawing on the mandatory water label (See SO8) together with water reuse technology including rainwater harvesting and greywater recycling.
- We need existing in-home water saving programmes significantly scaled up, and to include monitoring of the performance of water efficiency measures, so we learn and share knowledge of which elements are delivering the greatest savings and build upon these. This includes ensuring devices are kept in place and used following installation.
- We need programmes to work with landlords and housing associations to ensure non-homeowners do not miss the benefits that water efficiency measures bring.

89. www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ukhousebuildingpermanentdwellingsstartedandcompleted

90. www.homeenergyscotland.org/the-benefits-of-saving-water/

91. www.gov.uk/government/statistics/energy-consumption-in-the-uk-2020

92. www.waterwise.org.uk/knowledge-base/net-zero-and-the-role-of-water-efficiency-waterwise-2021/

93. assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/875485/2019_UK_greenhouse_gas_emissions_provisional_figures_statistical_release.pdf

94. www.ofwat.gov.uk/wp-content/uploads/2022/04/Customer-spotlight_Peoples-views-and-experiences-of-water_Final-report.pdf

95. www.gov.uk/government/publications/social-housing-decarbonisation-fund-wave-1-successful-bids

96. www.constructionleadershipcouncil.co.uk/news/national-retrofit-strategy-v2-launches/

3. Who are the key players?



The responsibility for delivering this objective is shared across a lot of organisations, which is part of the challenge faced. These include:

- Government and regulatory departments with responsibilities for energy, greenhouse gas emissions reductions, water-saving and drainage.
- Advisers such as the Climate Change Committee and National Infrastructure Commission.
- Local authorities, housing associations and private landlords.
- Water and energy companies and home and business resource efficiency advisors.
- Certification schemes such as BREEAM and sector training such as Supply Chain Sustainability School.
- Disability rights organisations and housing campaigners.
- Environmental delivery groups - providing home visits in communities.

4. How we will track progress



We propose tracking the following:

- Evidence of greater join up between water and energy programmes and between water scarcity and flood management/drainage retrofit programmes.
- Evidence of reduced water demand following water company in-homes visits and other large scale retrofit programmes.
- Sales of water-efficient products - tracked through monitoring roll-out of the water label.
- Uptake of certifications and training for organisations such as plumbers and installers.



CASE STUDY

National Retrofit Strategy

In 2021 the Construction Leadership Council published the **National Retrofit Strategy**, a twenty-year blueprint for how the construction industry can work with Governments to retrofit the UK's 28 million existing homes.

The strategy is supported by more than 50 organisations including Waterwise and calls for a whole house approach to retrofit that considers water efficiency alongside energy efficiency.

Without a long-term plan, the UK cannot meet its targets of achieving net zero carbon emissions by 2050.





Strategic Objective **EIGHT**



People and organisations are fitting water-efficient products and making use of a mandatory water efficiency label. The take-up of innovative water-saving products is increasing

1. Why is it important?

If people and organisations are to choose more water-efficient products, they need access to appropriate information at the point of sale. Product water efficiency labels can provide this information and have been used successfully around the world⁹⁷ to help significantly reduce water demand, as well as saving money, energy and carbon⁹⁸. They can be used to reinforce minimum standards and also to set requirements for new build (S06) and retrofit programmes (S07) to ensure that only the most efficient products are being installed. Modelling has shown that this will reduce personal consumption by around 5% within 10 years and 20% after 25 years⁹⁹. Introducing a mandatory water label in the UK has been described as “the single most cost effective policy measure that the government could adopt to reduce household consumption”¹⁰⁰. In July 2021 the Defra Secretary of State committed¹⁰¹ to introduce a mandatory water efficiency label to inform consumers and encourage the purchase of more water-efficient products for both domestic and business use. All the UK governments are actively involved and the intent is for a mandatory UK scheme to be operational in 2024.

Once in place the water label will encourage the development of innovative water-saving products. But we believe more needs to be done to help both in trialling such products and rolling them out. The Ofwat Innovation Fund¹⁰² and the Trial Reservoir¹⁰³ are examples of funds that can help support trials, but we also need stronger incentives to support roll-out and we need regulations to keep up with innovation.

A tangible example of water efficient fittings making a difference can be seen at Linlithgow Rugby Club who saw its water use drop by around 36% in 2022 on peak use days following a water efficiency audit. The sports club made the change following a water-saving competition run by Water Plus who identified areas for savings and helped to install urinal controllers, along with more water efficient taps and shower heads. The club in Linlithgow, West Lothian, saw water use drop from 1.7 cubic metres of water a day to 1.08 cubic metres of water a day in 2022.

97. [iwa-network.org/wp-content/uploads/2019/02/IWA-EUWM-Labeling-Report_Final-002.pdf](https://www.iwa-network.org/wp-content/uploads/2019/02/IWA-EUWM-Labeling-Report_Final-002.pdf)

98. www.waterwise.org.uk/knowledge-base/why-we-need-a-mandatory-water-label-waterwise-briefing/

99. [waterwise.org.uk/wp-content/uploads/2020/09/Water-Labeling-Technical-Report-reissue-Final.pdf](https://www.waterwise.org.uk/wp-content/uploads/2020/09/Water-Labeling-Technical-Report-reissue-Final.pdf)

100. www.water.org.uk/wp-content/uploads/2019/12/Water-UK-Research-on-reducing-water-use.pdf

101. questions-statements.parliament.uk/written-statements/detail/2021-07-01/hcws140

102. waterinnovation.challenges.org/

103. www.isleutilities.com/services/trial-reservoir

2. What needs to change?

- We need to make sure that the mandatory water label is ambitious; UK-wide; covers the appropriate water-using products; and is linked to requirements for new buildings (SO6) and retrofit programmes (SO7).
- We need the labelling scheme to include minimum standards that gradually tighten over time to remove the most inefficient products from the market.
- We need to see collaboration between governments, manufacturers, retailers, the water sector and consumer groups to promote the label - including explaining why it is needed and how people can use it.
- We need to review and identify options to improve the take up of innovative products. We need to make sure that regulations are keeping up with innovation.
- We need stronger testing and certification processes for water-using devices used within housing and commercial building retrofit/ refurbishment schemes, in parallel with the water label. Stronger product testing and certification will reduce the number of poor-quality devices on the market and installed into existing homes.

3. Who are the key players?

The UK Governments are already committed to introducing a mandatory water efficiency label on domestic and commercial products. However, to successfully deliver significant water savings the following players also need to be involved:

- Product manufacturers, retailers and their trade bodies - covering bathroom, kitchen and garden products.
- Wholesale and retail water companies.
- Consumer groups.
- Plumbers and their trade bodies and certification organisations.
- Procurement teams and facilities managers.
- Innovation supporters and funders.

4. How we will track progress

- Market and sales data can be used to identify trends in availability and sales of efficient products.
- Public surveys can be used to see whether people recognise the mandatory label and use it when making purchasing decisions.
- An independent review should be commissioned to assess the costs and benefits of the scheme and to recommend improvements, including customer satisfaction with water efficient appliances.



CASE STUDY

Water labelling in Australia

A mandatory water labelling scheme linked to minimum fittings standards has been in place in Australia since 2005¹⁰⁴.

By 2017 it was already saving over 300 Ml/d of water and had reduced carbon emissions by 11 MtCO_{2e}. By 2030 it is estimated that using water-efficient products could save Australians more than \$2 billion. That's an average saving of \$175 per household each year.

The Australian water label is used on dishwashers; flow controllers; showers; taps, toilets; urinals and washing machines. The label must be visible to consumers at the point of sale with unlabelled products not permitted to be sold.

The scheme is supported by a product database that allows users to search for efficient products, with rebates available to encourage purchasers to choose more efficient options.



104. www.waterrating.gov.au/choose



Strategic Objective

NINE



**Leaking toilets and confusing
dual-flush buttons are
a thing of the past**

1. Why is it important?

Between 5-8% of toilets are leaking and that adds up to a lot of wasted water¹⁰⁵ - around 400 million litres a day across the UK. The issue even featured on BBC Radio 4's Costing the Earth programme "The Great Leaky Loo Scandal" in September 2020¹⁰⁶. A combination of poor design, poor quality materials and a lack of maintenance following installation is largely to blame. A single leaking toilet typically wastes 200-400 litres of water a day which could be costing the customer around £200 a year. The water wasted is equivalent to having a couple of extra people moving in with you! Across the UK, the amount of water leaking into our toilets is enough to supply the needs of more than three million people or would be water saved for the environment.

Thames Water found through its business visits and smart meter data that the average leaky loo in business properties is losing over 2,000 litres a day, with uncontrolled urinals losing approximately 1,800 litres a day.

There's another issue. The reason dual-flush toilets are dual-flush is so that people can choose between a smaller flush or a big flush. However, for many designs on the market it is not obvious which button does what. In a 2019 customer survey undertaken by SES Water only 28% of 1,200 people knew which button did what in their own house!¹⁰⁷ Fortunately, the solution is simple. Recent consumer research¹⁰⁸ found that the two buttons need to be clearly marked and the big flush button to be at least 150% the size of the small flush one.

2. What needs to change?

- We need manufacturers to engineer out leaky loos through changes in design and materials for new products.
- Many of these products do exist and we need to engage with why adoption of innovative water technology is so slow.
- We need collaborative campaigns to raise awareness amongst households and other organisations of toilet maintenance and how to find and fix a leaky loo.
- We need wholesale water companies to offer more consistent levels of support both to help water users find leaky loos (through metering and high consumption alerts) - and then to fix the problem¹⁰⁹.
- We need manufacturers to ensure their dual-flush button designs make it obvious which button delivers the short flush.

105. www.waterwise.org.uk/knowledge-base/leaky-loo-position-statement-october-2020/

106. www.bbc.co.uk/programmes/m000mznn

107. Survey by SES Water

108. www.wrasapprovals.co.uk/news/articles/dual-flush

109. www.nwl.co.uk/leakyloos

3. Who are the key players?



The key players are the bathroom product designers and manufacturers who can develop leak-free designs and buttons that are easily discernible. In addition, progress will need the support of:

- The Bathroom Manufacturers Association.
- Wholesale and retail water companies.
- Consumer groups.
- Plumbers and procurement teams.

4. How we will track progress



- Reducing the percentage of leaky loos identified from water company visits or with continuous flow if smart metered.
- Appearance of leak-proof dual-flush products on the market and increasing market share.
- Longitudinal public surveys, such as the triannual Defra survey, to determine levels of awareness of leaky loos and dual-flush buttons.

CASE STUDY

Getting to grips with leaky loos

Waterwise, the toilet manufacturers, the Bathroom Manufacturers Association and water companies are working collaboratively on solutions to leaky loos. In March 2021 we issued a joint statement setting this out and committing to make more progress¹¹⁰ both on designing out the problem and raising awareness. The commitments were:

1. The issue of leaking dual-flush toilets is recognised by the UK Water Efficiency Strategy Steering Group (UKWESSG) and the Bathroom Manufacturers Association (BMA), as is the need to work together to address the problem.
2. Reducing the number of leaky loos will save householders and businesses money on water loss and on repairs. It will reduce carbon emissions, improve the security of future water supplies and leave more water in the environment.
3. The BMA, toilet manufacturers and Thames Water (representing the UKWESSG) have been working together to understand leaky-loo causes and identify the most viable solutions.
4. As a result of this collaborative working, we can confirm that just over half of the toilet designs or materials identified as prone to potential leaky-loo issues, are no longer on the UK market. The toilet manufacturers are working to improve the performance of more WC devices available for the new installations and retrofitting markets, by the end of 2021.
5. The UKWESSG and BMA are working together to:
 - Encourage changes in design and materials by manufacturers that avoid or minimise the leaky-loo issue in newly installed or repaired toilets.
 - Raise awareness amongst households and businesses so that they quickly spot leaks in their existing toilets and get them fixed.
 - Raise awareness amongst plumbers, installers, developers and policy makers.
6. To help buyers and installers of dual-flush toilets, Waterwise has developed a simple 1-page guidance note to reduce the risk of leaky-loos.¹¹¹

110. www.waterwise.org.uk/wp-content/uploads/2021/03/Leaky-Loo-Joint-Statement.pdf

111. www.waterwise.org.uk/knowledge-base/dual-flush-toilets-waterwise-tips-for-buyers-2021



Strategic Objective

TEN



Organisations are more motivated to save water and the delivery of water-saving advice and support to them is working well

1. Why is it important?

Around 30% of public water supplies used in the UK are used outside the home, for example in businesses, schools, gyms, hospitals, hotels - over three billion litres a day. The vast majority of sectors use water in a similar way to households - for taps, toilets and showers - with some requiring water for specific purposes such as brewing or industrial processes.¹¹²

It follows that if we want to reduce water demand then we need these sectors to be motivated to save water too. However, for many non-household sectors water is cheap, especially when compared to energy; and awareness of the need to save water is limited¹¹³ (SO1). Like most household water users, organisations often don't get regular timely information on their usage (SO2), despite the benefits¹¹⁴. In England, for example, the retail water market set up for non-household water users has, despite clear progress with some customers, largely failed to deliver the positive water-saving outcomes envisaged.^{115/116}

We shouldn't ignore those non-public water supply abstractors whose water use also impacts on overall water availability and the environment. We need to encourage and support them to use water wisely, for example through the permitting regime and land management payments such as the Sustainable Farming Scheme in Wales.¹¹⁷

2. What needs to change?

- We need to fix the regulatory regime so that it funds, supports and encourages wholesalers and retailers to collaborate in helping organisations to save water. Focus is needed on retailer margins and the current disincentive for retailers to reduce customers' water usage as it has a direct impact on their revenue.
- We need to ensure that organisations have access to timely, useful data on their water use (see also SO2).
- We need to create more tangible incentives or reasons for organisations to save water - such as relevant targets, benchmarking information, reporting requirements, tariffs and incentives. Examples of this are Everflow's incentive scheme¹¹⁸ and Waterwise Checkmark.¹¹⁹
- We need to review and report on water use trends by non-public water supply users and make sure they are encouraged to reduce their water demand.
- We need to see non-household organisations using the right quality water for the right use (for example, not all uses require potable water and could use recycled water or non-treated water).

112. mosl.co.uk/news-and-events/news/views/mind-your-business-putting-water-efficiency-on-the-map

113. mosl.co.uk/document/groups-and-committees/retailer-wholesaler-group/rwg-water-efficiency-guidance/4704-rwg-non-household-customer-water-efficiency-survey-results-nov-2021/file

114. mosl.co.uk/news-and-events/news/enhanced-metering-research-report-published

115. www.ofwat.gov.uk/publication/a-joint-ofwat-and-environment-agency-open-letter-from-rachel-fletcher-and-harvey-bradshaw-delivering-greater-water-efficiency-in-the-business-sector/

116. www.ofwat.gov.uk/wp-content/uploads/2021/02/Joint-open-letter-from-Ofwat-and-the-Environment-Agency.pdf

117. gov.wales/sustainable-farming-scheme-co-design-future-farming

118. Everflow - <https://www.everflowwater.com/blog/free-business-water-efficiency-certification-scheme>

119. Checkmark - <https://www.waterwise.org.uk/checkmark-for-offices-2/>

3. Who are the key players?



Ultimately, delivery of this objective will rely on the organisations themselves saving water. However, the following are key players in helping that happen:

- Governments, regulators (including environmental regulators), and market operators.
- Organisations responsible for water wholesale and retail activities across the UK.
- Retailer Wholesaler Group in England.
- Trade bodies.
- Business sustainability advisors.
- Third party campaigning organisations such as Waterwise and WRAP.
- Consumer bodies.

4. How we will track progress



- Positive changes to the regulatory regime including targets and incentives that encourage non-household water saving alongside household water saving.
- Trends in non-household water consumption.
- Longitudinal surveys reveal increasing awareness of the need to save water and motivation to do so.

CASE STUDY

Water saving initiatives across a range of sectors

Sector	What is it and who is involved	Key commitments
Government Estate (England)	<p>Greener Govt Commitments (2021) 🚩</p> <p>Office and non-office estate of central government departments and their Executive Agencies (EAs), Non-Ministerial Departments (NMDs) and executive Non-Departmental Public Bodies (NDPBs).</p>	<ul style="list-style-type: none"> • Reduce water use by 8% by 2025 compared to a 2017/18 baseline. • All water consumption will be measured. • A qualitative assessment will be made to show what is being done to encourage the efficient use of water.
Leisure Sector	<p>Leisure Operator Water Charter (2021) 🚩</p> <p>Club Managers Association of Europe, Grounds Management Association, Race Course Association, and UK Golf Federation .</p>	<ul style="list-style-type: none"> • Raising awareness of water availability challenges especially during dry weather. • Sharing good practice and case studies. • Preparing Water Resilience Assessments.
Housing	<p>Greening our Existing Homes (2021) 🚩</p> <p>Construction Leadership Council led with Housing associations, trade bodies, professional bodies and NGOs (including Waterwise)</p> <p>50l Home (2021) 🚩</p> <p>Coalition of global corporates (Ikea, P&G, Grunfos, Electrolux, Suez) with partners (including Scottish Water, BraveBlueWorld, Arcadis)</p>	<ul style="list-style-type: none"> • Sets out the case for the UK Government, working in partnership with industry, finance, and other community based bodies to introduce a national retrofit strategy to make our existing homes greener and more energy and water efficient. • Making 50 litres of daily water use per person in the home a reality.
Horticulture	<p>Sustainability 2025 Roadmap 🚩 and 2021 Progress Report 🚩</p> <p>and two “How To” guides</p> <p>Holistic Water for Horticulture 🚩</p>	<ul style="list-style-type: none"> • By 2025 an aggregate 40% increase in the proportion of water that comes from non-mains and re-used water sources such as rainwater or runoff capture among growers and retailers. • By 2025 an aggregate 25% increase in the proportion of HTA members using water efficiency measures such as reservoirs and automated irrigation systems.

Sector	What is it and who is involved	Key commitments
Food & Drink	2030 Roadmap towards Water Security (2021) 🚀 WRAP-led, Major supermarkets (Asda, Tesco, Sainsbury's, Ocado, Aldi), growers, food processing companies and several NGOs (WWF, Waterwise).	<ul style="list-style-type: none"> Continued effort to increase water use efficiency in their own operations. Projects in the top 20 most important product and ingredient sourcing areas in the UK and overseas. Overall target by 2030 that 50% of UK fresh food is sourced from areas with sustainable water management.
Education (England)	Department for Education - new water efficiency Project Manager appointed (2021) as part of Schools Water Strategy.	<ul style="list-style-type: none"> Targeted water-saving in schools. Several pilots underway with intent to roll out to 10,000 schools by 2026. Considering an associated educational programme.
Fashion Industry	Fashion for Good 🚀	<ul style="list-style-type: none"> Promoting innovations that have the potential to cut water consumption by between 83 and 95 per cent.
Bathroom Product Manufacturers	Leaky Loo 2021 Commitment 🚀 (BMA, Manufacturers, Waterwise/ WESSG) Dual Flush Buttons (WRAS)	<ul style="list-style-type: none"> Collaboration to phase out worst leaky loo designs (2021) and to raise awareness of leaky loos and maintenance through Lavvy Savvy campaign. Improvements to dual flush button design to ensure the big and small flush buttons are easily distinguished.
Big Corporates	<ul style="list-style-type: none"> Sainsbury's - Water Neutral 🚀 stores + fully water neutral by 2040 (own operations and offsetting) Facebook - Water Positive 🚀 by 2030 (own operations and offsetting) Mars - Water Balancing 🚀 at five sites by 2025 (match each litre demand with one recycled) Microsoft - Water Positive 🚀 by 2030 (own operations and offsetting) BP - Water Positive 🚀 by 2035 (own operations and offsetting) 	<ul style="list-style-type: none"> L'Oreal - creating hair care products 🚀 that use less water Molson Coors - 22% greater water efficiency 🚀 + offsetting IHG Hotels - Reduce water footprint 🚀 of hotels in water risk areas Hilton Hotels - reduce water use intensity 🚀 by 50% by 2030 PepsiCo - Water Positive 🚀 by 2030 (high risk areas) (own operations and offsetting)

How much water could be saved if we deliver the strategy?

Earlier we highlighted the benefits of reducing water demand. We also highlighted that water efficiency measures, not including leakage, are expected to deliver around 1,000 MI/d of the 4,000MI/d (million litres a day) potential deficit in England if we want to secure future water supplies. Savings will also be sought in the other UK countries.

It is therefore useful to consider, albeit crudely, how much water could potentially be saved if we succeed in delivering the strategy and its objectives. Table 2 presents a rough estimate of the scale of potential savings that could be realised by the end of this strategy period in 2030, from a selection of 10 of the more significant interventions. The figures are based on a mix of evidence from existing programmes and research, coupled with what we believe are realistic “roll-out” assumptions. Whilst there will be some double counting, the interventions identified could save at least 1,500 MI/d by 2030 - 600 Olympic swimming pools a day and help us secure more resilient water supplies, enable future growth and a healthier environment and society.

Table 2 Estimated 2030 UK Water-saving potential of various interventions linked to the strategy

Intervention and link to Strategic Objective	Estimated 2030 UK Water Saving Potential	Assumptions
A. Smart meter roll-out helping reduce consumption (SO2)	>350 MI/d	1 million household smart meters a year rolled out annually to unmetered households with 15% reduction in household consumption. ¹²⁰
B. Water efficiency label in place (SO8)	>300 MI/d	Mandatory label with minimum standards in place for 5 years and linked to requirements for new build and large scale retrofit. ¹²¹
C. A third of new housing developments are made water neutral (SO6)	>200 MI/d	Assuming 250,000 houses per annum x 7 years x 33% made water neutral. ¹²²
D. Leak-prone loos are being eliminated (SO9)	>200 MI/d	All leak-prone toilets off the market and half of the installed leak-prone toilets replaced in homes and organisations by 2030. ¹²³
E. Confusing dual-flush toilet buttons eliminated (SO9)	>200 MI/d	Assuming on average each person is wasting 3.5 litres per day through incorrect use, this could be in the home or elsewhere. ¹²⁴

120. www.thameswater.co.uk/about-us/newsroom/latest-news/2021/apr/smart-water-meter-milestone

121. www.waterwise.org.uk/knowledge-base/water-labelling-phase-2-project-technical-report/

122. www.waterwise.org.uk/knowledge-base/a-review-of-water-neutrality-in-the-uk-2021/

123. www.waterwise.org.uk/knowledge-base/leaky-loo-position-statement-october-2020/

124. Based on customer surveys and analysis by SES Water

Intervention and link to Strategic Objective	Estimated 2030 UK Water Saving Potential	Assumptions
F. Reduced wastage in NHH sites (SO2 and SO10)	>150 MI/d	Assuming 25% supply entering non-household sites is continuous flow and/or leaks and is reduced by 20% by 2030. ¹²⁵
G. Water reuse is included in all large new developments in water-stressed areas (SO6)	>150 MI/d	Assuming developments with a collection area threshold over 2,000 m ² . ¹²⁶
H. Water-saving home visits and retrofits (SO7)	>60 MI/d	Assuming 2 million homes saving 10%. ¹²⁷
I. Showers fitted with behavioural devices and nudges (SO3)	>50 MI/d	Assuming 3 million devices fitted leading to 20% shorter showers. ¹²⁸
J. Campaign savings (SO3)	>100 MI/d	Assuming 20 MI/d savings ¹²⁹ from Save our Streams x 5 regional campaigns.

In terms of sequencing, interventions A,B C, and G all rely on supportive government policy being introduced as soon as possible before they gradually start to take effect. Interventions D and E are already underway in collaboration with the BMA but for both any savings are partly limited by the rate of replacement of fittings in existing homes. Items F and H rely on the scaling up of existing activity by the water industry and must be built into future investment plans. Intervention I needs to transfer quickly from small-scale research trials to larger trials and roll-out at scale. Intervention J is envisaged as an ongoing activity running throughout the strategy period and underpins many of the other objectives.

Notes:

- Some of the interventions and associated savings may overlap. For example, where smart meters are installed and accompanied with a home water saving visit.
- SO1 is needed for most of the above interventions to work effectively.

125. 25% figure based on Thames Water smart meter data

126. [waterwise.org.uk/wp-content/uploads/2020/09/Ricardo...Identifying-policy-options-to-incentivise-RWH-and-GWR-in-the-UK-Final-Report.pdf](https://www.waterwise.org.uk/wp-content/uploads/2020/09/Ricardo...Identifying-policy-options-to-incentivise-RWH-and-GWR-in-the-UK-Final-Report.pdf)

127. Based approximately on savings seen following Thames Water Smarter Home Visits

128. [showeringsmartly.com/](https://www.showeringsmartly.com/)

129. Based on the 20 MI/d saving attributed to Save our Streams in The Water Report, March 2022

An action plan to deliver the strategy

Delivering the UK Water Efficiency Strategy and the strategic objectives will require a wide range of actions to be undertaken. Over the time period of this strategy through to 2030 these actions will change as some are completed and some are amended, and new actions need to be added.

Therefore, we propose developing a detailed action plan which will sit alongside the strategy. For each strategic objective the action plan will set out in more detail:

- The actions to be taken in a one to two year window.
- Who is leading on each action.
- Any crossovers between objectives and different organisations.
- Which organisations need to be involved to deliver the action.

Progress with the action plan will be monitored by the Water Efficiency Strategy Steering Group (see below) and it will be regularly refreshed and updated.

Monitoring and evaluating delivery of the strategy

It is important that progress with the delivery of the strategy is monitored and evaluated. We need to know whether things are on track or where additional action may be needed. We propose doing this in three main ways.

1. Tracking the delivery of short term actions in the action plan

For each of the Strategic Objectives we will identify a small number of actions that we believe need to be undertaken in the next two years. These will be agreed and prioritised by a Task and Finish Group or similar for each strategic objective (see page 62). They will then be presented in an action plan which sits alongside the strategy. We will track the delivery and cost/benefit of these actions and ensure that the action plan is kept under review and updated throughout the lifetime of the strategy.

2. Monitoring progress with each of the strategic objectives

As highlighted in the preceding sections, we have a range of ways we propose using to monitor progress in achieving each of the strategic objectives, through a mix of qualitative and quantitative indicators. We will seek outcome-based reporting of the savings achieved by each measure over the period of the strategy. This will help inform future strategies and also business planning and regulatory cycles.

3. Tracking progress against an overarching Distribution Input metric

In addition, as an overarching metric for the new strategy (to track our overarching objective that water demand is in line with what is needed to ensure resilient water supplies and protect the environment) we propose tracking actual versus planned levels of Distribution Input (i.e. the total of household consumption, non-household consumption and leakage) for each of the four UK nations, drawing on published plans and datasets updated as necessary (see Appendix B).

We will share progress in delivering the strategy in a short Annual Report and more frequent updates and case studies when appropriate through a new UK Water Efficiency Strategy webpage.

Strategy governance

The previous UK Water Efficiency Strategy (2017-2022) benefited from a very active Steering Group that helped support its delivery as well as providing a useful forum for sharing best practice. The Steering Group also linked to water efficiency groups in Scotland and Wales and to the Retailer Wholesaler Group¹³⁰. We would like to thank all those who have been part of these groups over those five years and have helped move the water efficiency agenda forward.

We will build on this approach with a smaller **UK Strategy Steering Group** which will focus on tracking its delivery and keeping the action plan up to date, and a larger, more diverse **Water Efficiency Forum** which will be focused on promoting and sharing best practice and co-ordinating research, campaign and advocacy activities and can draw in representatives from other key groups such as housing sector, high water-using organisations, environmental and third sector organisations.

We will publish updates about these groups on the Waterwise website. If you are interested in attending the forum or future events please email engagement@waterwise.org.uk.

In progressing the last strategy it has also been helpful having a number of **Task and Finish Groups** which are focused on making progress on a particular topic or issue, and horizon scanning for risks and opportunities, including learning from other countries. These have included water labelling, leaky loos, water and energy and, water neutrality. We will continue with this approach and intend to have a task and finish group, or similar group, linked to each of the strategic objectives (see next steps on page 63).

We will maintain the links between the UK Water Efficiency Strategy and country-specific water efficiency groups that run in **Scotland** and **Wales** and water efficiency leads in **Northern Ireland**. This will be achieved through having some common members who will provide the link.

¹³⁰ most.co.uk/groups-and-forums/industry-groups-forums/retailer-wholesaler-group/rwg-water-efficiency-subgroup/rwg-water-efficiency-steering-group-members

Next steps and how to get involved

We will only be successful and meet our vision if we all work together across the UK - sharing successes and failures so we can learn and improve.

We will be holding the **Water Efficiency Forum** three times a year. These will be a mix of online and in-person events.

We will look to share all information from the forum online.

We are developing a **Task and Finish Group** or similar for each objective. We had strong support in the consultation from a diverse range of organisations interested in supporting these groups.

If you would like to be involved please email engagement@waterwise.org.uk or visit [waterwise.org.uk](https://www.waterwise.org.uk) for more information.


Collaborative fund

To help support delivery of the UK Water Efficiency Strategy a new Water Efficiency Collaborative Fund has been set up. It has received contributions from all the UK water wholesale companies with Waterwise acting as fund holder.

The fund became operational in April 2022 and will be used to commission collaborative research into shared water efficiency challenges and solutions. Use of the fund is managed by a small Collaborative Fund Board. If you would like more information on the fund and how to bid into it please contact Waterwise.

Appendix A - Engagement and inputs into the strategy to date

To develop this strategy we aimed to engage widely, as success depends on commitment and contributions from a wide range of organisations.

We undertook an initial round of consultation in August 2021 and received 55 responses from 44 different organisations across the UK. You can read a summary of the responses to that first stage of consultation [here](#). 

The key findings were that respondents:

- Supported the current vision.
- Felt water scarcity was a serious threat to the UK and more needed to be done.
- Agreed that the strategy should remain UK-wide (but recognised the differences between countries).
- Wanted to be involved in shaping and delivering the strategy.

A Task and Finish Group, which includes wholesale and retail water company members alongside representatives from regulators and consumer groups, has also been supporting Waterwise in developing the strategy, including the strategic objectives.

Three online MIRO workshops were held early in 2022 with water efficiency stakeholders from across the four UK countries. Participants reviewed the strategic objectives; helped to identify potential actions and made suggestions on how we can measure progress. The insights from these workshops were incorporated into a draft document.

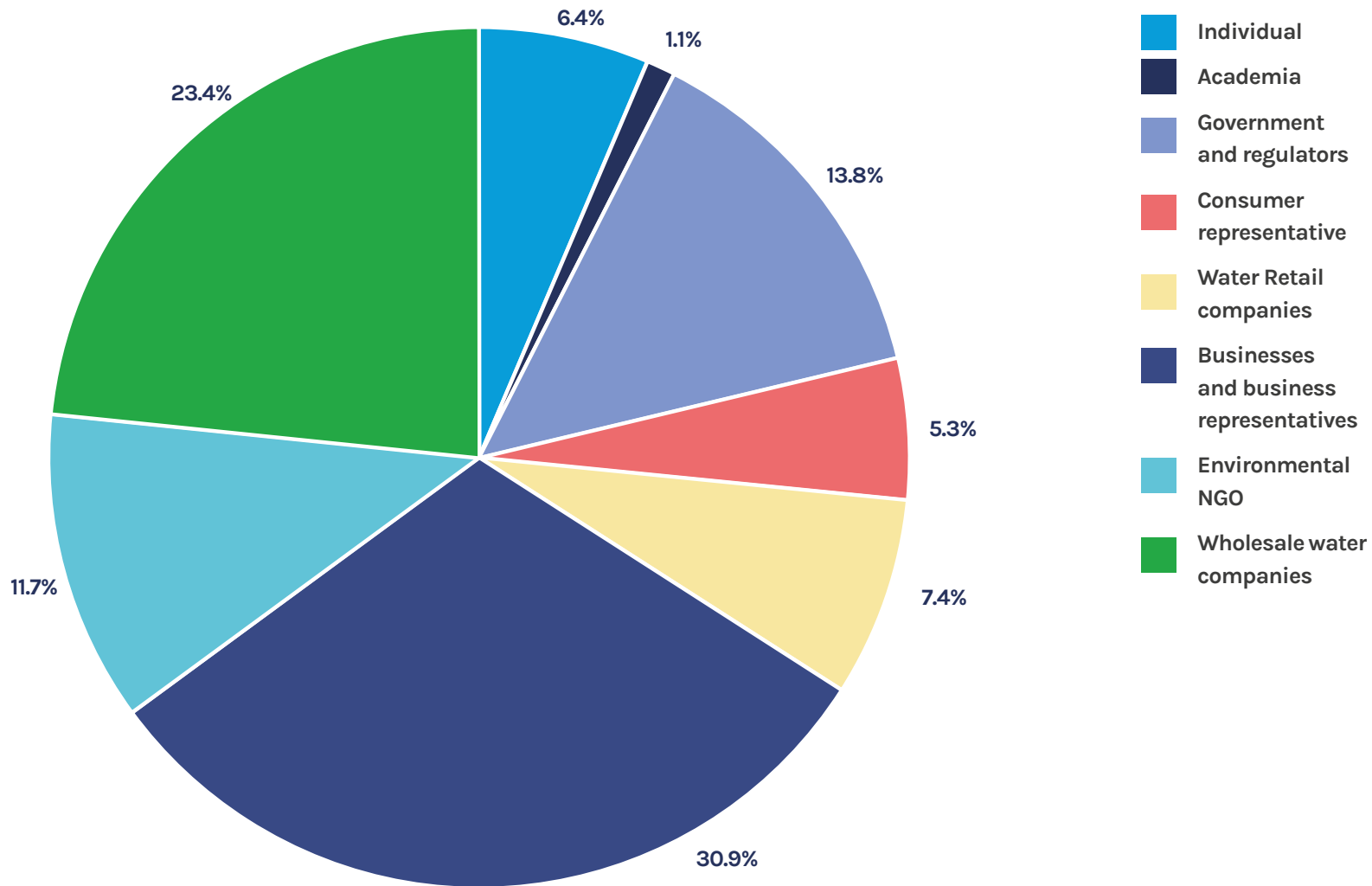
In March 2022 the Waterwise Conference included a session linked to the new strategy which posed the question 'What next for water efficiency in the UK'? A range of organisations shared their thoughts and the insights and conversations during the session have helped shape the draft document.

In June 2022 we published a draft document and held a consultation period for one month. We had 61 responses to the consultation from 54 organisations (a threefold increase on the 2017 consultation).

We were pleased that there was overwhelming support for the strategy and objectives. We were challenged to make the strategy clearer on what water efficiency is, the requirements of leakage for demand management, ensuring water quality is a priority, and ensuring focus on water reuse and rainwater harvesting.

These responses have all helped to feed into this final strategy.

Types of organisations actively involved in the consultation



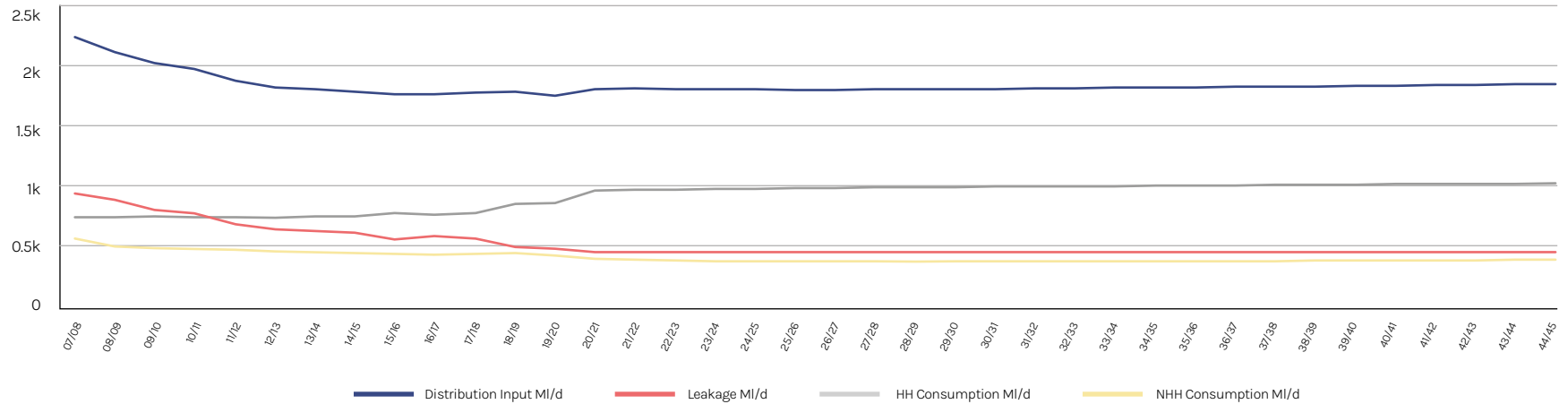
Thank you

Thank you to all the organisations that have been actively involved in our engagement activities to develop the strategy.

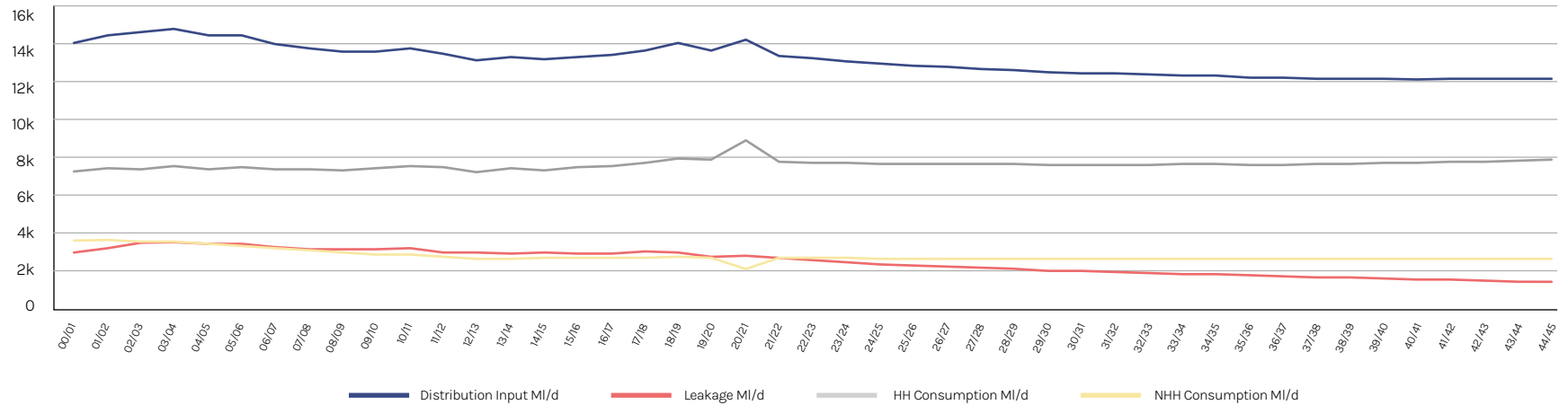
Amphibian and Reptile Conservation	Environment Agency	Ofwat	Water-Plus
Anglian Water	Everflow Water	Policy Connect	Water2Business
Aquality	Grapeviners	Portsmouth Water	Waterscan
Arqiva	Groundwork	Scottish Government	WaterUK
Artesia	Higglety Pigglety	Scottish Water	Watflo
ARUP	Institute of Fisheries Management	Sensemaking	Wave
Atkins	Irish Water	SEPA	Welsh Government
Bathroom Manufacturers Association	JPJN Partners	SES Water	Welsh Water/Dwr Cymru
Blueprint for Water	Kelda	Severn Trent Water	Wessex Water
Bristol Water	Keyline	SIAMP	West Country Rivers Trust
British Canoeing	Kiwa	Skewb	WICS
Business Stream	Major Energy Users' Council	Source for Business	Wild Fish
Cascade-Enviro	Make Water Famous	South East Rivers Trust	Wildlife Trusts
CCW	Manx Utilities	South East Water	WRAP
Chiltern Society	Methven	South Staffordshire Water	WRC
Climate Change Committee	MOSL	and Cambridge Water	WRE
ConservAqua	Natural Resources Wales/	South West Water	WRSE
Consumer Council	Cyfoeth Naturiol Cymru	Southern Water	Yorkshire Water
Consumer Scotland	Nature Scotland	Stormsaver	
Creative-EC	NEA	Thakeham	
Defcon8	Northern Ireland Water	Thames Water	
Defra	Northern Ireland's Department	UKRMA	
Department of Education	for Infrastructure	United Utilities	
Energy Savings Trust	Northumbrian Water Group	University of Exeter	

Appendix B - Historic and predicted future water demand across the countries of the UK

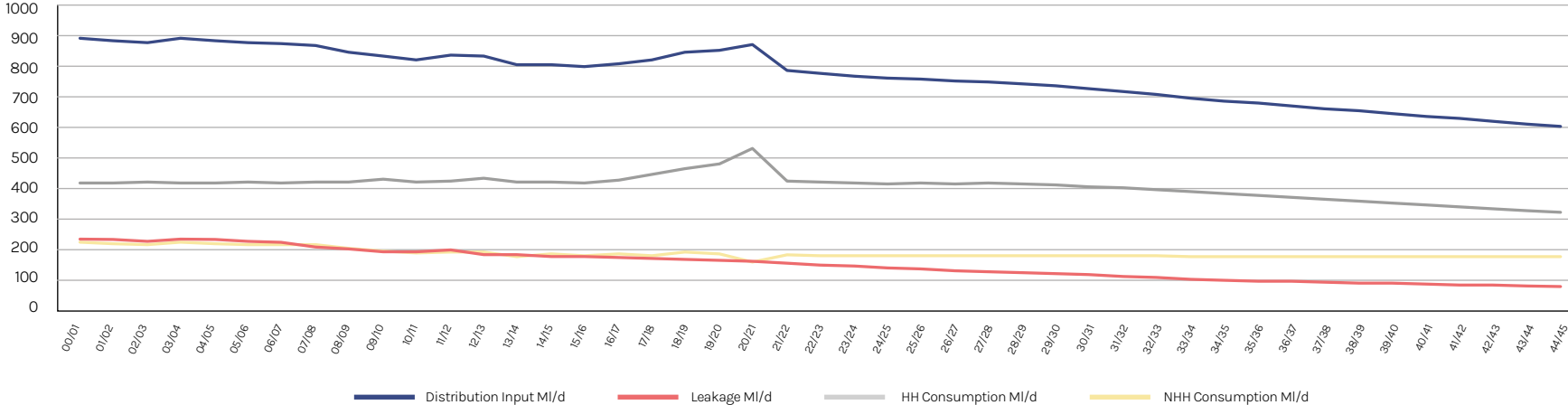
Water Demand MI/d (Scotland) - Past Actual Data to 20/21 and Future Projections



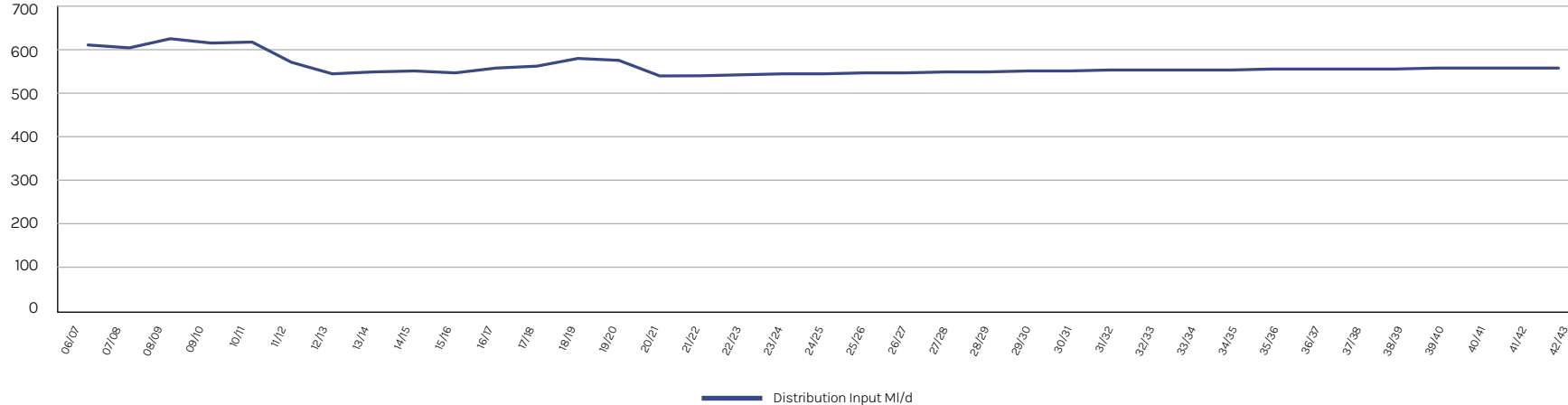
Water Demand MI/d (England) - Past Actual Data to 20/21 and Future Projections (WRMP19)



Water Demand MI/d (Wales - Welsh Water only) - Past Actual Data to 20/21 and Future Projections (WRMP19)



Water Demand MI/d (Northern Ireland) - Past Actual Data to 19/20 and Future Projections (DYAA)



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