

‘Nothing happens without water’

Nicci Russell
Waterwise CEO

Green Register Twilight Talk, 13th May 2024

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Our Vision Water will be used wisely, every day, everywhere, by everyone

Our Values Purpose, passion, pioneer and people

Waterwise is the **leading independent voice** in the UK for using water wisely, for the benefit of people and the planet.

Our vision is that **water is used wisely every day, everywhere, by everyone**. We are the UK's conscience on water efficiency, on behalf of people and the planet, and are experts in water efficiency policy, regulation, research, behaviour and campaigns.

Waterwise is a **people-led organisation** which prioritises the wellbeing of its staff.



Our Strategic Direction to 2030

Waterwise's 2030 Strategic Objectives

- ✓ We are an even more independent organisation with a more diverse funding and support base
- ✓ We have an even stronger, bolder voice and are unafraid to call for the actions needed
- ✓ We are harnessing the power of partnerships to achieve more
- ✓ We are listening to a more diverse range of voices, reflecting the UK communities we seek to engage
- ✓ We are helping deliver the water savings we need to ensure resilient water supplies and protect the environment (see *2030 UK Water Efficiency Strategy*)
- ✓ We remain focused on water efficiency but have a broader impact on using water wisely
- ✓ We are reducing our own environmental footprint
- ✓ We have even greater influence across the UK on legislation, policy and regulation for ambitious water efficiency



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Our Supporters and Affiliates

waterwise Supporter

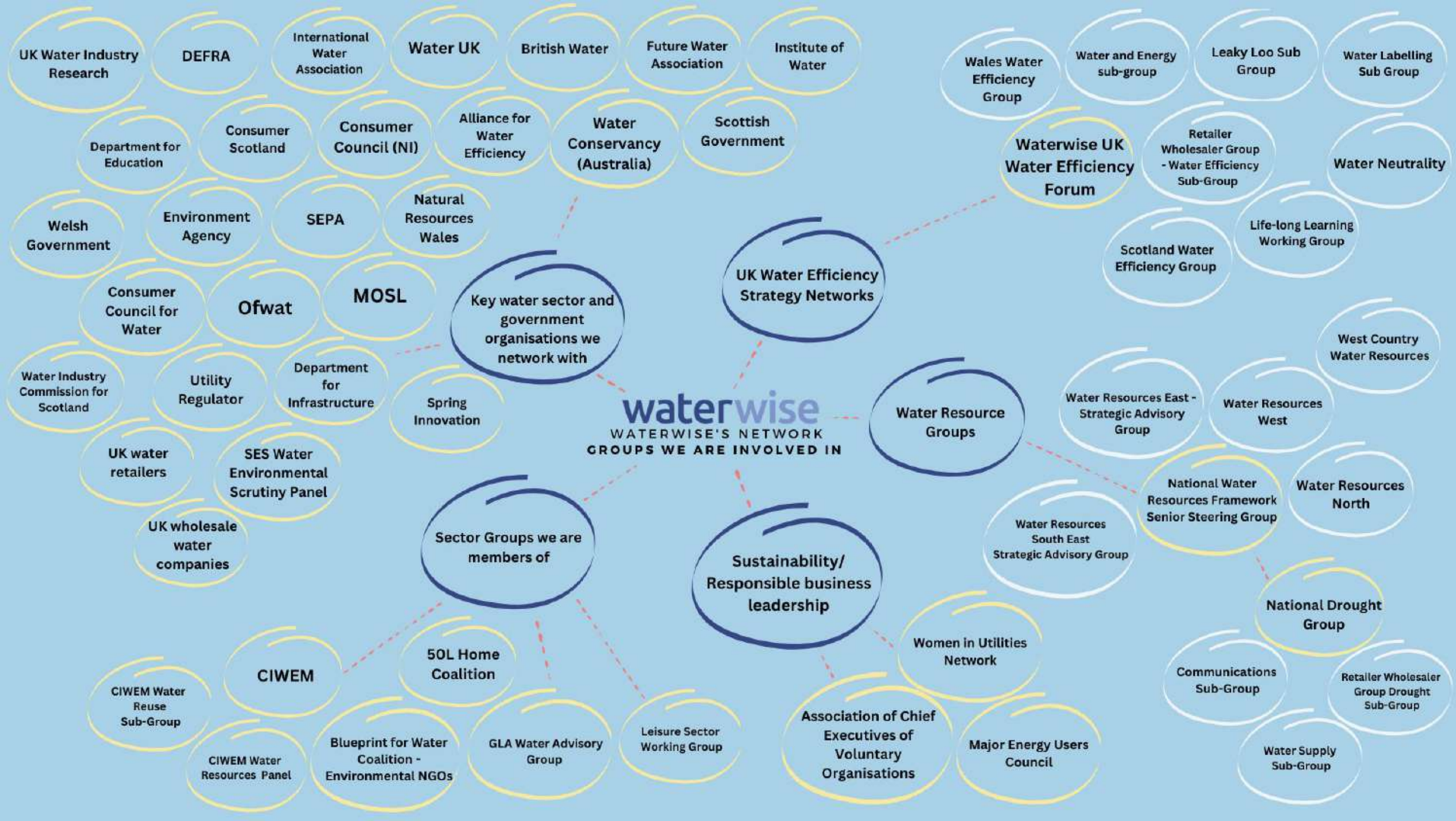


waterwise Associate Supporter



waterwise Affiliate





Our staff team



Rob Bealey

Team Assistant



Stephanie Fox

Head of Water Efficiency
Engagement



Stella Lindsey

Office Manager



Chloe McFarland

Campaigns Manager



Jo Osborn

Deputy Head of Policy and Public
Affairs



Nathan Richardson



Nicci Russell



Chris Scullion



Richard Tidswell



Laura White

#WaterSavingWeek



We're supporting

Water Saving Week

You can too!

Water Saving Week » 13-17th May 2024

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"I welcome Waterwise's strategic objectives to 2030 and I recognise the government has a role to play in achieving these ambitious targets. I look forward to continuing our work through the government and my work as the Minister for Water, with Waterwise, to help accelerate our efforts to closing an identified supply demand gap."

- Robbie Moore MP, Minister for Water and Rural Growth (England), Defra





#WaterMakesItPossible

We can grow and thrive because of water.
Let's make sure there's enough to go around.

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We need water for

Drinking, hydration

Sanitation - flushing toilets, washing ourselves and our clothes, dishes, cars, etc

Healthcare - imagine a hospital with no water

Economic growth - offices and factories, trains, buses, shops, new houses and buildings

Education - schools can't open without water

The environment

The internet

We need it for life. It's hard to think of something we don't need it for



"Worth its weight in water"
(the new term for infinite value)

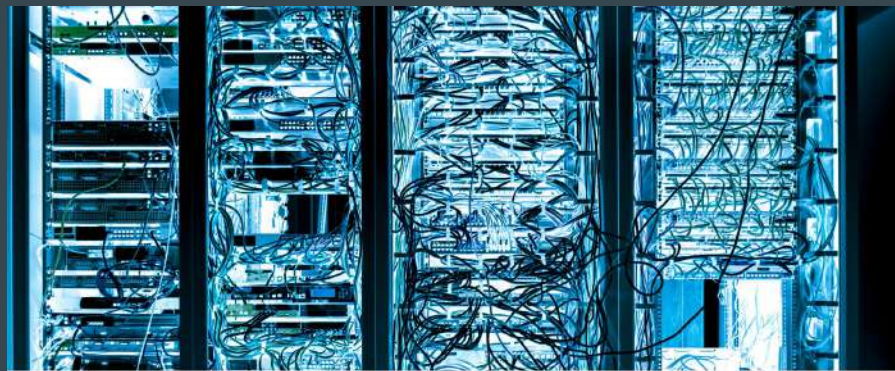
#WaterMakesItPossible **waterwise**

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Exhausted but still going strong...
#WaterMakesItPossible

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The internet...
#WaterMakesItPossible

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Clean and healthy...
#WaterMakesItPossible

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#WaterMakesItPossible

All families need water.
Let's make sure there's enough for everyone.

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Despite recent record rainfall, water IS running out already



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NEWS

Home Cost of Living War in Ukraine Climate UK World Business Politics Culture Tech

Schools closed as water shortage hits South East



Media Society Law **Scotland** Wales Northern Ireland

Bottled water station at Heathrow Aerodrome in Ashford, Kent

Concern over Loch Ness low water levels amid UK dry spell

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Where are hosepipe bans in place and how can I save water?

By Neil Aspinall

UK Heatwaves



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Water use plea as drought declared for most of Wales

By Al August 2022



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1 minute read · September 25, 2022 8:21 PM GMT+1 · Last Updated a month ago

UK must continue to use water wisely as drought remains -drought group

Reuters



Heatwave to bring hosepipe ban to north-west England

United Utilities says 7 million customers will be affected by first ban since 2012

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What does running out of water mean?

Rationing - who chooses/who loses?

Water environment - dried up

Economy - shut down

No new development

Schools, hospitals, shops etc - closed

Public health - at risk, in hospitals and care homes, via infectious diseases, mental health impacts

Climate emergency - harder to meet net zero ('90% of 5 to 6%')

Climate emergency - restricted access to water

Bills - water bills go up, so does the cost of food



They say we only value the things we don't have...

#WaterMakesItPossible

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This is already an actual showstopper

Already parts of the country where new businesses are being refused connection to a water supply

Example 1

Anglian Water has implemented a non-household policy to only supply water for non-domestic purposes that is included in their forecast. This means, of the 56.57 MI/d of water requested for non-household use in 2023/2024, they offered 4.33 MI/d. **This is 7.65% of that requested**

Example 2

In Cambridge the Environment Agency have said that any new development in Greater Cambridge can not increase extraction - meaning **all new water demand must be offset before development is approved**



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Less water, more people, all of us using more

Personal water use in the home has increased by around 60% since the 1960s plus we have an extra 13 million people in the UK, including me!

So we are now using twice as much water in our homes every day - an extra **5,000,000,000** litres a day (5000 Mld) compared to 58 years ago

26% decline in renewable freshwater resources available per person in the UK since 1960s

Climate emergency

Business use rising - NB Covid



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Mind the gap - massive shortfall

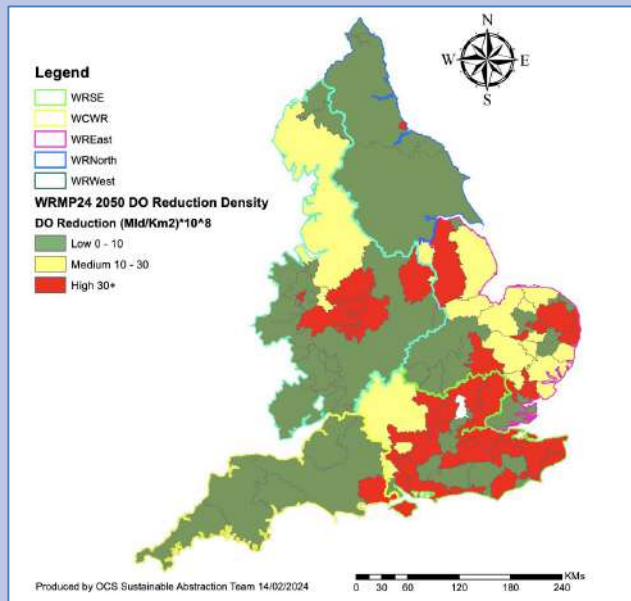
5 billion litres a day deficit between sustainable supplies and expected demand in England. More than $\frac{1}{3}$ of what is currently put into supply. Deficits across the country.

Table 1: Total public water supply demand deficit in England at intervals up to 2050 in Ml/d (sum or surpluses and deficits)

Water company total	2029-30	2034-35	2039-40	2044-45	2049-50
Total deficit	-1460	-2170	-3040	-3890	-4860

27% of the deficit is due to population/housing growth and business growth

58% of the deficit is due to the need to protect and improve the environment



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And water often gets forgotten in sustainability



Imperial College students; Waterwise Dry July 2023
<https://www.youtube.com/watch?v=RDfEtPPsGCU>

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10 strategic objectives

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



Strategic Objective 1

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



Strategic Objective 2

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



Strategic Objective 3

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



Strategic Objective 4

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



Strategic Objective 5

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



Strategic Objective 6

All new developments are net zero in water consumption.



Strategic Objective 7

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



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



Strategic Objective 9

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



Strategic Objective 10

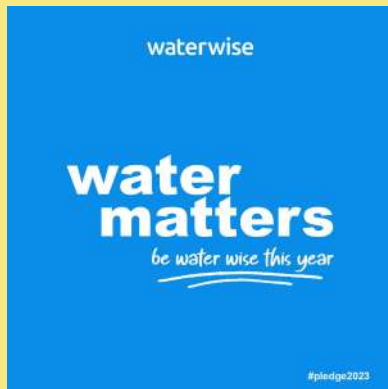
Organisations are more motivated to save water and the delivery of water-saving advice and support to them is working well.

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UK Water Efficiency Strategy to 2030



Waterwise 2023 UK Campaigns



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It's ALL about people - at home and at work



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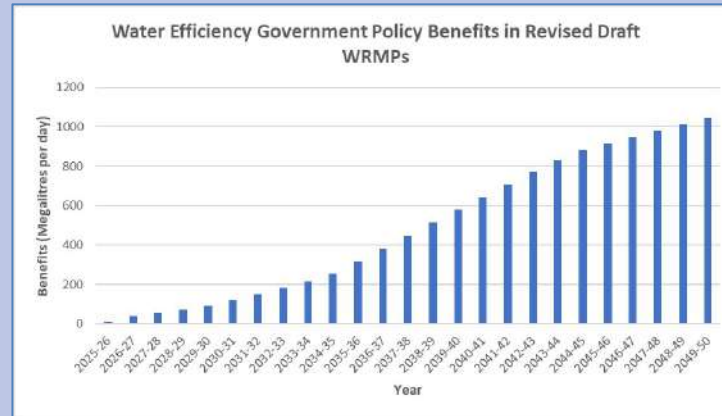
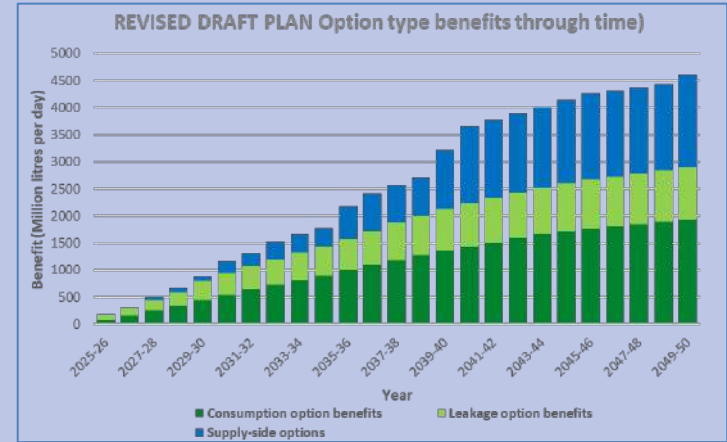
What are the benefits of water efficiency?



Keeping the taps flowing

Reducing water demand is earmarked to deliver **65%** of the huge water supply deficit comprising 42% from greater water efficiency and 23% from reduced network leakage

Over **1000 Mld** of the deficit is to be met through new government water efficiency policies – water labelling, Building Regulations, product standards



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Enabling growth and improving resilience

News • Cambridge News • Environment

'Not clear whether there is enough water' for additional homes to house Cambridge's growing population

Councillors are concerned about whether there is enough water to supply new homes and jobs in the area without causing further environmental harm and putting rivers and chalk streams at risk.

By Cait Findlay
06:00, 7 Jun 2023

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Suffolk water shortage may 'throttle back' firms' growth

21 August 2023

Climate



ANTHONY SAKENIC/SHUTTERSTOCK

This picture, submitted by a farmer, illustrates the impact of the supply chain's drought.



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Business City of London

London Businesses Next to Face Water Restrictions Amid Drought

- Thames Water says it's not clear when dry conditions will end
- Parts of southeast England already have hosepipe ban

Sun < NEWS MONEY HEALTH DEAR DEIDRE MOTORS TRAVEL TE



News > Scottish News

HIGH AND DRY Drought warning issued to Scots businesses – here's how to avoid running out of water

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Protecting and enhancing the environment



UK wildlife 'devastated by litany of weather extremes' in 2022

National Trust's annual audit reveals a dire year for animals from toads and bats to birds and butterflies



📷 Pool clusters that natterjack toads need to travel across dune slacks dried up at Formby on Merseyside and no toadlets were spotted. Photograph: Do Van Dijk/Natural England/PA

1 in 7 wetland species in England are at risk of extinction

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Reducing emissions and reaching Net Zero

Homes – both new and existing – account for 17% of greenhouse gas emissions in the UK

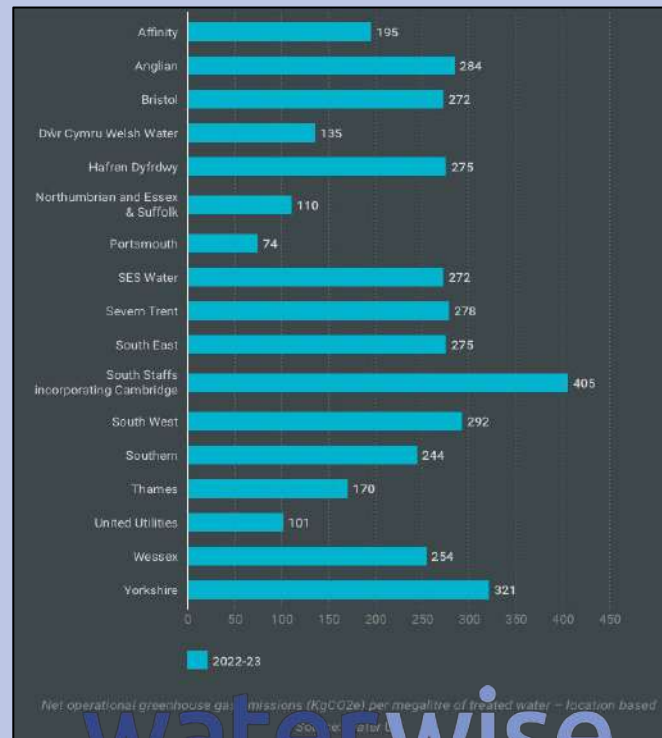
Water use contributes 6% to UK carbon emissions

Most of that (90%) is from how we use water in our homes – heating water

Reducing water consumption by around 20% could cut UK emissions by 1%

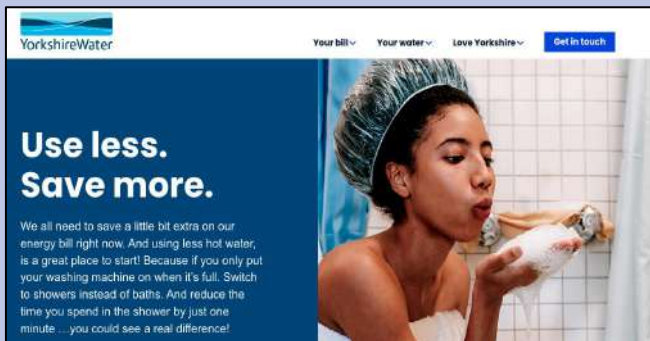
Saving water should be part of the net zero journey

GHG Emissions (kgCO₂e per MI of treated water)



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Saving people and businesses money



Thames Water Smarter Business Visits (average savings)

School	8629 l/day	£9.4k/yr
Leisure Centre	6829 l/day	£7.5k/yr
Hotel	5932 l/day	£6.6k/yr
Multi-business site	1991 l/day	£2.1k/yr
Pub	1878 l/day	£2.0k/yr
Office	1428 l/day	£1.6k/yr
Restaurant	940 l/day	£1.0k/yr
Shop	626 l/day	£0.7k/yr
Hairdresser	455 l/day	£0.5k/yr

- Average water bill is £473. Rises of between 28% and 70% planned by 2030
- Hot water use is the second biggest contributor to energy bills after space heating
- Around 12% of a typical household energy bill comes from heating water for taps and showers

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Overarching Water Saving Target

Environment Act 2021 - a new **statutory demand reduction target** (England) - 20% reduction in the amount of water put into public supplies per person by 2038

Reduce average household water use to 122 lppd by 2038 (110lppd by 2050)

Reduce non-household water use by 9% by 2038 (15% by 2050)

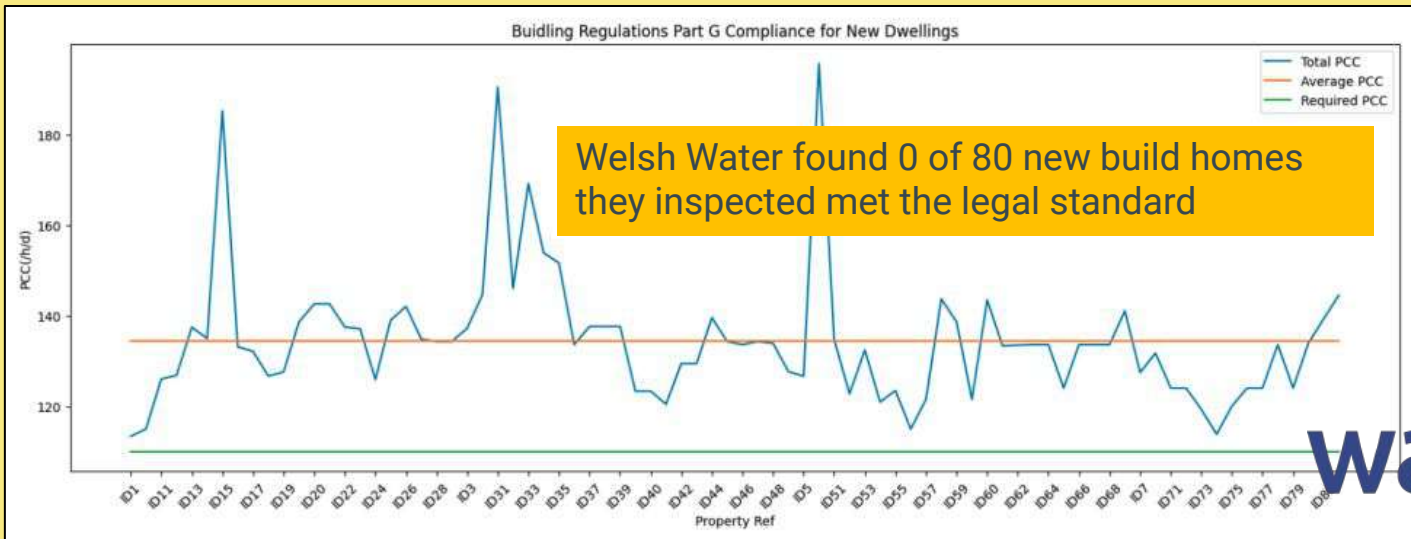
Reduce network leakage 37% by 2038 (50% by 2050)



Planning

Building Regulations Part G Water Efficiency

- Current standards are not ambitious enough (125/110 lppd)
- Used as the performance target...ceiling on ambition
- No incentive to include any water reuse (as standards met without it)
- Calculator approach is dated and flawed
- Compliance isn't being monitored and standards aren't being met



Thames Water found actual consumption in new build homes is 140 lppd on average rather than the 110 lppd in the standard

Building Regulations Part G Water Efficiency

- Consultation on new standards is planned in **late Spring 2024**
- Options likely to include:
 - Tighter standards with same approach
 - Much tighter standards with similar approach
 - New approach linked to product water efficiency label

Future Homes Hub proposals for new homes (April 24)

2025	2030	2035
105 LPPPD achieved through fittings approach	100 LPPPD achieved through fittings approach and innovation	90 LPPPD achieved through fittings approach and further innovation
100 LPPPD in water stressed areas	90 LPPPD in water stressed areas	80 LPPPD in water stressed areas
90 LPPPD in seriously water stressed areas	To be determined in seriously water stressed areas	To be determined in seriously water stressed areas



Should water efficiency be included in an **Energy**
Environmental Performance Certificate (EPC) for homes and
businesses?

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Planning

Water neutrality or 'net zero water'

Sussex North

Cambridge

Tighter standards and
an offset market



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Products

Mandatory product water efficiency labelling

Single most impactful and cost effective policy change to reduce water use

Planned launch date in 2025

Could be linked to requirements for both new homes and retrofit



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	Australia (10 years)	England (25 years)	N.Ireland (25 years)	Scotland (25 years)	Wales (25 years)
Water saving (Mld)	300	1500	25	110	58
Emissions (MtCO ₂ e)	11	50	2	4	2
B:C Ratio	9:1	65:1	18:1	21:1	36:1

Products

Number 1 or number 2?

- Dual-flush toilet buttons
- 25% of people don't know which button did what in their own home toilet despite 'readily discernible' legal requirement
- For some designs most people press the wrong button



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Products

Encouraging innovation

- Low-flow taps (<6 litre per minute)
- Low flush or waterless toilets (<1.4 litres per flush)
- Air boost showers (5 l/m that feels like 10 l/m)
- Water recycling showers (whole shower uses 12 litres only, no matter how long)

At the moment none of these innovative water-saving products could be fitted in a new home

Need to review the Water Fittings Regulations 1999; NHBC Standards, SAP and EN977 to ensure they are fit for the future



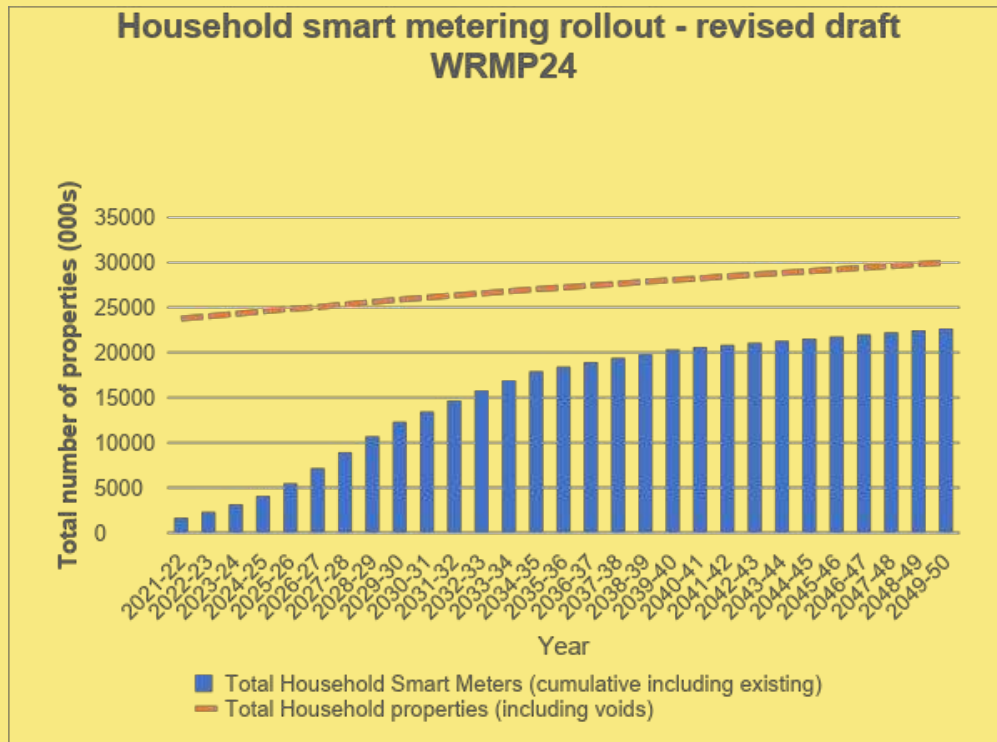
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Monitoring

Smart water meter roll-out

£1.5bn roll-out planned between 2025 to 2030 in England

But current policy means some water companies can't compulsorily meter with charging (Yorkshire, Northumbrian, UU)



Monitoring

Smart water meters and in-property leakage

Smart water meters can rapidly detect leaks

Around 25% of supply to business premises is continuous flow!

1 in 10 homes are leaking internally – >80% due to leaky loos

Typically 200-400 litres a day per toilet or >400Mld nationally - fixing this issue would close about 10% of the water supply/demand gap

Leakage is also a huge cost to insurance sector (25% of insurance pay-outs relate to internal leaks)

Smart meters also support behaviour change initiatives and enable incentives and variable tariffs



PLEASE

REPORT A LEAKING TOILET

TO SAVE WATER



sponsored by:



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Actively playing your part in meeting the challenge - the importance of water management in construction

Water management is a cornerstone of sustainable construction - far-reaching implications for the environment and industry

Construction sector's water use significantly impacts local water cycles - from availability of water to health of aquatic ecosystems

Excessive water use in construction contributes to water scarcity

Water is used throughout all stages of the construction life cycle

The UK construction industry can save **691 million litres per day of water by 2030** if all residential projects are designed to be water neutral for 10 years (Waterwise, 2019)

[Construction Leadership Council summer 2023](#)

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We can help you get ahead of the curve

Waterwise Affiliate



Waterwise Checkmark



Waterwise Training



Waterwise Campaigns and Events



Waterwise Champions-led Change

info@waterwise.org.uk

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Coming soon - Interested in Waterwise Champions-led change?

How water-literate is your organisation? Is water scarcity a feature of discussions? Would you like to be in the vanguard of Waterwise Champions-led change?

You may already be working towards sustainability objectives, goals and accreditations, and/or have your own water management strategies - we can support you. Water efficiency is as much about behaviour as infrastructure and fittings.

Email me on nicci.russell@waterwise.org.uk



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Delivering champions-led change - striving for water neutrality

Educating your workforce...educating your clients

Invest in training for your workforce on the importance and operation of water-efficient practices and systems, raising consciousness around:

- Water-saving fixtures and fittings
- Rainwater harvesting systems
- Recycling greywater
- Proper soil management
- Dust suppression techniques



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Conclusion

The UK's existing water resource situation is very challenging, predicted to get much worse, and already affecting development

Water efficiency can help address this whilst also delivering benefits for people, businesses and the environment

The UK Water Efficiency Strategy to 2030 sets out how

The 'environment' is changing for new and existing homes and businesses in more ways than one

Get ahead of the game by joining the Waterwise family.....



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Thank you!

nicci.russell@waterwise.org.uk

www.waterwise.org.uk

Follow us on social media and stay up to date!



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