

**#WhyNotWater**

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Water is not part of the climate change debate. It is treated like an add-on but it is critical to life. We need this to change now  
**#WhyNotWater**

With some really simple changes to legislation and policy we can conserve water and our natural environment.

As Greta Thunberg, Extinction Rebellion and the Committee on Climate Change's 'Net Zero' report have highlighted, we need to act now!

A few simple actions would mean that we all use water more responsibly. (1) We need government to implement a mandatory water efficiency labelling scheme. The effects have been proven in Australia, China, Ireland, Israel, New Zealand, Singapore and California – so what are we waiting for?

Across Europe, consumers are used to energy labelling and manufacturers have responded by reducing the energy consumption of white goods. (2) In the UK, private tenants have the right to request that their landlord install energy efficient measures<sup>1</sup> – why not water too? We want tenants to enjoy water efficient homes – saving them money and helping the environment. (3) We want to ensure products are installed correctly and that products, which under plumbing regulations are not legal to install, are also not legal to sell.

(4) Finally we want every Local Plan in a severely stressed area to include a target of 110 litres of water consumption per person per day. All we are asking for is a common-sense approach to water.

In March, Sir James Bevan said that the water crisis was like **'looking into the jaws of death'**<sup>2</sup>.

<sup>1</sup> Residential Landlords Association, 'Tenants Right to Request Consent to Energy Efficiency Improvements'

<sup>2</sup> Sir James Bevan, 'Escaping the jaws of death: ensuring enough water in 2050', GOV.UK

We are installing a giant block of ice in front of St Albans Cathedral to show people what our water consumption looks like – this represents the volume of 8,000 litres of water! This is what the average family of four use in two weeks (based on average water use of 152 litres per person per day<sup>3</sup>), but unlike their energy or other bills they have no idea what the cost is to them or to the environment. We want government to make this easier – introduce mandatory water labelling, let private tenants ask for a water efficient home, ensure new build properties are water efficient.

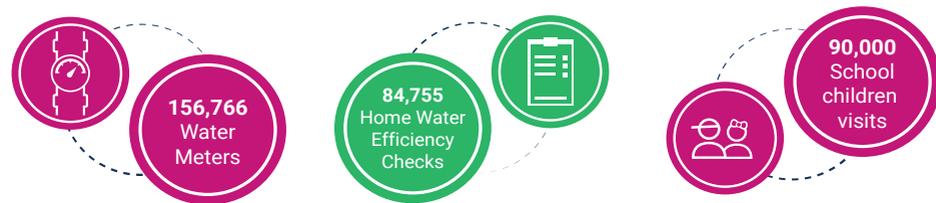
We're working hard to do our bit. We have committed to reducing leakage, helping customers to use less water and our Draft Water Resources Management Plan is looking at a range of long-term strategic water supply options.

Since 2015, we've worked with our customers to install 156,766 water meters and have conducted 84,755 home water efficiency checks where we provide and fit free water saving devices and offer water saving advice.

We also encourage all our customers to order free water saving devices from our website and we are working with the environmental charity Hubbub to deliver the #TapChat campaign.

Since 2014 our education team have seen more than 90,000 school children – and, for the last four years we have partnered with WaterAid to deliver Challenge: Water to educate students about saving water and develop their STEM skills. During Challenge: Water, students have come up with some fun innovative ideas – relevant for teenagers – on reducing shower times, including musical showerheads and apps to challenge family members to take shorter showers.

Together we are spreading the message that we need to conserve water, but we need to do more, differently and faster. We're asking people to support our campaign: share our stories on Twitter, Facebook and Instagram, write to their MP. **Together, whether we are a business, a farmer, individual or Government, we can bring about change to decrease our water usage.**



## Using public art as way of re-engaging people about conserving water

We are installing a piece of public art, called The Cold Hard Truth, in the grounds of St Albans Cathedral to engage with people about the importance of water and the need to conserve it.

The Cold Hard Truth is an ice installation that represents how much water a typical family of four uses in two weeks.

Set against a back-drop of the impressive man-made St Albans Cathedral, The Cold Hard Truth represents the UK's dwindling water resources, as the ice block slowly melts away and eventually disappears. But as the ice disappears our campaign, and our hope, will grow.

The intentional ice melting references Ólafur Eliasson's Ice Watch project of 2018/2019. We admired the way in which Eliasson used the melting ice to encourage people to take a moment to contemplate their relationship to the environment and we wanted to do the same.

The grounds of the cathedral provide the perfect space for personal reflection. Visitors will be able to find out more through our #WhyNotWater website and reflect on and question their own relationship with water.

**The Cold Hard Truth is the start of our campaign – #WhyNotWater** – to spark and fuel a national debate about water conservation and change behaviours at all levels. The visual essay we are creating will ensure that its legacy is not lost, providing a basis and literal ice-breaker as we look to build trust and forge partnerships to protect our shared water.

“The truth is: the natural world is changing. And we are totally dependent on that world. It provides our food, water and air. It is the most precious thing we have and we need to defend it.”

**Sir David Attenborough**

## Why do we need to use water more responsibly?

Changing weather patterns may mean that there will be less water in the future and more frequent extreme weather events such as droughts and flooding. Climate change is likely to reduce the supply of water in our area by 39 million litres of water per day by 2080<sup>4</sup>. The South East of England is already classified as a severely water stressed area. Put simply, this means it gets less rainfall than other parts of the country. The Affinity Water area is one of the driest in the UK, for example, between July 2016 and April 2017 the area received 33% less rainfall than the national average<sup>5</sup>.

In addition, the population is growing and is expected to increase by 12% by 2025, 27% by 2045 and 51% by 2080. This is equivalent to approximately 1.8 million more people in our supply area<sup>6</sup>.

## What we need to do

By implementing some simple measures, we can help tackle the water crisis and change the way we all view and value water. We can't do it alone. We need your help to make sure we have enough water for now and our future generations. We are asking voters to join our campaign on Change.org asking for four simple changes that already exist in the energy industry:

- mandatory water efficiency labelling so that consumers are able to make informed choices about the appliances they purchase
- rights for tenants to request that their landlords install water saving measures so that they are able to enjoy water efficient homes
- ensuring fixtures and fittings meet minimum standards through mandatory certification e.g. WRAS or KIWA to avoid wasting water
- every Local Plan in a severely water stressed area should include the target of 110 litres per person per day.

<sup>4</sup> Affinity Water, 'Our Plan for Customers and Communities: A summary of our Revised Draft Water Resources Management Plan 2020 - 2080', 2019, p.4.

<sup>5</sup> Affinity Water, 'Our Plan for Customers and Communities: A summary of our Revised Draft Water Resources Management Plan 2020 - 2080', 2019, p.4

<sup>6</sup> Affinity Water, 'Our Plan for Customers and Communities: A summary of our Revised Draft Water Resources Management Plan 2020 - 2080', 2019, pp.4 -5.

# Mandatory water efficiency labelling

Water efficiency labelling is not currently mandatory on goods that use water. We have this for energy, why not water? We want manufacturers to label their products, so people know how much water they are using. A labelling scheme will empower people to make an informed choice, so they can save water, save energy and save money.

A new study by the Energy Savings Trust<sup>7</sup> has shown water labelling is a very cost-effective approach and could bring the national average Per Capita Consumption (PCC) from 140 litres per day to 108 litres per day.

**'The Water Use Efficiency for Resilient Economies and Societies Roadmap'** by the High Level Water Panel (HLWP) sums up how water labelling in different parts of the world is driving innovation and reducing water use. This extract in italics emphasises why we should be getting on board too:<sup>8</sup>

*"Australia, China, Ireland, Israel, New Zealand, Singapore and USA<sup>9</sup> have water efficiency labelling requirements which empower consumers to make choices favouring more water efficient appliances. Water efficiency benchmarking and labelling is leading to market transformation, as industry better understands the costs and benefits associated with efficiency savings. This is driving innovation and resulting in a steady improvement in the efficiency of technology across a range of industry sectors. Labelling also offers businesses a platform to communicate their commitment to corporate social responsibility, especially in industries that traditionally have high water-use.*

<sup>7</sup> Energy Savings Trust, 'Independent review of the costs and benefits of water labelling options in the UK: Technical Report'

<sup>8</sup> HLWP, 'The Water Use Efficiency for Resilient Economies and Societies Roadmap', United Nations: Sustainable Development, p.8

<sup>9</sup> Approved by the World Plumbing Council (WPC) are: Australia - Water Efficiency Labelling Scheme (WELS) (indoor), Australia - Smart Approved Watermark (SAWM) (outdoor use/other), US and Canada - WaterSense, China - Water Conservation Certificate, Europe - European Water Label, Hong Kong - Water Efficiency Labelling Scheme (WELS), India - Water Efficiency Products India (WEP-I), Malaysia - Water Efficient Product Labelling Scheme (WEPLS), New Zealand - Water Efficiency Labelling Scheme (WELS), Portugal - ANQUIP Certification and Labelling of Water Efficiency of Products, Singapore - Water Efficiency Labelling Scheme (WELS), UAE - ESMA Water Efficiency Label. Several additional schemes have been included in the matrix. Please note these schemes are not recognised by the WPC, and are eco-labels that apply to many types of products, but standards for water-using products covered by these labels include water efficiency: Japan - Eco Mark, South Korea - Eco-Label, Taiwan - Green Mark, Thailand - Green Label, Switzerland - Swiss Energy Label, Norway, Sweden, Finland, Denmark, Iceland - Nordic Swan.

*"Australia's Water Efficiency Labelling and Standards (WELS) scheme has been found to be highly effective in meeting its objectives of conserving water supplies, providing consumers with water efficiency information and promoting the adoption of water saving technologies. Recent research found that 87% of Australian consumers recognised the WELS label<sup>10</sup>, and it is estimated that by 2030 the scheme will have permanently reduced domestic potable water use by at least 200 gigalitres per annum or 8% of total household water consumption, plus the reductions in household water and energy costs."*

*"Australia's WELS scheme is underpinned by a national standard that specifies requirements for the rating and labelling of products for water efficiency. This standard is proposed to be used as a starting point for an international standard through the International Organization for Standardization (ISO). Enough countries have now agreed to pursue the standard for a standardised water efficiency labelling scheme to authorise its development through the ISO. An international standard would make it easier for countries to implement their own urban water efficiency programmes, providing a basis for the rating and labelling of water-using products which can be used to inform consumers or to set minimum national standards. Establishing a single international standard would also provide greater incentives for manufacturers to provide more water efficient products, knowing their efficiency claims would be recognised world-wide."*

<sup>10</sup> Australian Government, 'Label and Display Registered Products', 2017.

There is a European water efficiency label which is already used in the UK on a voluntary basis. Despite the efficacy in Australia of the scheme there is concern here that a labelling scheme which was mandatory would carry costs. These costs would include a testing regime. The testing regime could grandfather in those from the European scheme and could be designed to be compliant with the ISO regime. This would dramatically reduce the costs for product manufacturers and for administering the scheme. It would also ensure that a sufficient number of products were approved on launch of the scheme.

The European Water Label and the Waterwise CheckMark help identify water-efficient products – but these aren't universal to all stores and products. The European Water Label currently has 136 registered companies and 11,000 registered products<sup>11</sup>, and there has been some increase in use of the label in stores and

online. However, uptake is still far from widespread. Making the scheme mandatory would make it widespread and effective. A mandatory water labelling scheme is predicted to reduce demand to the levels that we need to in the future on its own.

We can learn from experience in Australia and the USA to further develop and strengthen water labelling in the UK. The US Environmental Protection Agency's Watersense labelling scheme has saved more than 1.5 trillion gallons of water since 2006<sup>12</sup>. It has also saved 78 mega tonnes of carbon dioxide<sup>13</sup>, and USD\$32.6 billion in savings in consumer water and energy bills<sup>14</sup>. In 2015, 16,110 labelled products were available<sup>15</sup>, the programme also extends to labelling of new homes and through social media and drought communications is well integrated into overall water efficiency programmes.

11 European Water Labelling, 2019

12 US Environmental Protection Agency, 'EPA's Voluntary WaterSense Program Demonstrated Success', August 2017, p.6

13 Waterwise, 'A Water Efficiency Strategy for the UK – Consultation', November 2016, p.17

14 Waterwise, 'A Water Efficiency Strategy for the UK – Consultation', November 2016, p.17

15 Waterwise, 'A Water Efficiency Strategy for the UK – Consultation', November 2016, p.17

## Private Landlords

Minimum energy efficient standards should apply to water efficiency too. Tenants should have the rights to request that their landlords install water saving measures so that they are able to enjoy water efficient homes. The regulations for energy mean landlords must have an energy performance certificate (EPC) by law<sup>16</sup>, with financial penalties if they do not. Why should the same standard not apply to water too?

## Domestic water efficiency through fixtures and fittings

There is considerable potential to improve water use efficiency by households if straightforward changes are made to domestic fixtures and fittings.

The replacement of inefficient taps, toilets, showerheads, washing machines and dishwashers with more efficient models can have significant effects on water consumption in the home, reducing per capita consumption significantly.

**Toilet leakage has been identified as a major issue in the UK. Research<sup>17</sup> on around 300 domestic toilets concluded:**

- that on average, approximately 4.1%

16 GOV.UK, 'The Private Rented Property minimum standard – landlord guidance documents', 2019

17 Ballinger, Winne and Rice, 'Leaky Loos Phase II: Water Industry Collaborative Fund Project 2015', Waterwise, p.ii, 2015

Toilet leakage has been identified as a major issue in the UK

- of toilets were found to be leaking
- average leakage rates of 215 litres/toilet/day (based on the sample mean) and 72 litres/toilet/day (based on the sample median)
- estimated total wastage from toilet leakage is 397 Ml/day (based on the sample mean) and 133 Ml/day (based on the sample median)
- the overall contribution of WC leakage to the average per capita consumption is between 1.65% and 4.63%.
- new properties (post-2000) are most likely to have leaks and 81% of these are associated with flush valves<sup>18</sup>.

We believe that fittings regulations should require that all dual-flush and low-flush WCs use syphon mechanisms. Currently they do not and often end up not being dual-flush, meaning that consumers may have made an eco-friendly choice, but product installation negates the effectiveness of the choice. We recommend that WaterSafe plumbers are always used when installing any new fixtures and fittings.

## Social housing and fixtures and fittings

Social housing stock makes up a significant proportion of properties across the UK – an average of 18% across the UK in 2012<sup>19</sup>.

It is also key because social housing tenants do not typically own their own fixtures and fittings but do own white goods. As social housing providers retrofit on a certain run-rate, water efficient retrofits could be done at zero-marginal cost.

Secondly, many industry experts say that when new build houses have water efficient devices installed, particularly in higher cost homes, they are ripped out. This is because the amenity value of a higher flow shower, for example, outweighs the marginal cost. Yet, some customers in social housing tell us they want to conserve water and the local environment, but are not allowed to change the fixtures and fittings or if they do, they will have to restore the previous fittings when their tenancy comes to an end.

<sup>18</sup> Ballinger, Winne and Rice. 'Leaky Loos Phase II: Water Industry Collaborative Fund Project 2015'. Waterwise, p.29, 2015

<sup>19</sup> Waterwise. 'A Water Efficiency Strategy for the UK – Consultation'. November 2016, p.13

Local authorities and housing associations regularly run retrofit programmes (fixing and amending water-using fittings in homes) and there is an opportunity to procure water efficient devices to help reduce water and fuel poverty.

In 2009, research for the Greater London Authority, revealed that 80% of social housing in London has baths but not showers<sup>20</sup> – this is in part because much of the stock was constructed before showers were considered a standard fitting, and in part because social housing standards such as Decent Homes do not require installation of showers as part of refurbishment. This is significant as an average bath uses 80 litres of hot water<sup>21</sup> compared with 32 litres for a 4-minute shower with a water-efficient shower head<sup>22</sup>.

In Wales, "Guidance on water and associated energy efficiency for the Welsh Housing Quality Standard for retrofit programmes" was published in 2012<sup>23</sup>. The guidance set out the key reasons for saving water in social housing and detailed what providers can do in procurement and retrofit programmes. It was estimated that if every social housing property in Wales had water-efficient taps and a retrofitted toilet and shower, combined energy and water bills could be reduced by £3.5 million a year<sup>24</sup>. Similar guidance could be developed for the Scottish Housing Quality Standard or the Decent Homes Standard in Northern Ireland. Changes to the English social housing system could also follow to ensure retrofits are carried out in a similar fashion.

<sup>20</sup> Waterwise. 'A Water Efficiency Strategy for the UK – Consultation'. November 2016, p.13

<sup>21</sup> Waterwise. 'How to save water at home'

<sup>22</sup> SaveWaterSaveMoney. 'Water efficiency showers and showerheads'

<sup>23</sup> Environment Agency Wales and Energy Saving Trust. 'Guidance on water and associated energy efficiency for the Welsh Housing Quality Standard for retrofit programmes'. Waterwise

<sup>24</sup> Environment Agency Wales and Energy Saving Trust. 'Guidance on water and associated energy efficiency for the Welsh Housing Quality Standard for retrofit programmes'. Waterwise, p.6

## New build

### Water efficiency in new developments has been improving but there is a long way to go

– with the scale of new housing in the UK there is a significant opportunity and a significant need to reduce water use in new developments.

Part G of the building regulations in 2010 for England and Wales require that the water use of a home (calculated using the Water Efficiency Calculator for New Dwellings) be no more than 125 litres per person per day <sup>25</sup>.

The optional Technical Standards in the National Planning Policy Framework<sup>26</sup> (England) set out how local planning authorities can develop Local Plan policies requiring new dwellings to meet the tighter Building Regulations optional requirement of 110 litres per person per day in areas of water stress. The definition of water stress for this purpose is different to that for water metering and evidence can come from water companies and other sources.

Affinity Water is working with planning authorities to do this and has identified all of the local planning authorities in its supply area who do not yet have this target. The Ministry for Housing Communities and Local Government (MHCLG) could ensure that all local-

authorities do this – and provide much greater support to Local Authorities looking to do so (they currently ask water companies for advice). We're asking people to sign a petition on Change.org and to ask their local authority to set the target of 110 litres per person per day in their local plan.

To find out what targets each Local Authority has set visit [www.whynotwater.co.uk](http://www.whynotwater.co.uk).

Builders can either meet the standards in the National Planning Policy Framework based on the 'water calculator' approach or an AECB-based fixture-based approach (based on good practice and best practice flow rates). The minimum standard should not be the benchmark.

Moreover, even in the circumstances where the standards are met it has been observed that new occupants remove water efficient measures. We believe that Defra should look at gathering policy and legal experts to see if covenants or other rules could be drawn up to prevent this from happening.

<sup>25</sup> Department for Communities and Local Government, 'Approved Document G: Frequently Asked Questions', OGL, 2016, London, GOV.UK, p.6

<sup>26</sup> GOV.UK, 'Housing: optional technical standards', 2015

## A holistic vision for sustainable catchments

The water cycle is broken. We are working to understand how we can improve land management practices to ensure more sustainable water now and in the future. We are working with agriculture and other sectors to help make their businesses more sustainable, improve soil health, reduce pollution, capture more carbon and provide the ecosystem goods and services our society needs in a sustainable way. Making a success of this will improve the quantity and quality of water in our catchments. Affinity Water is currently working on a range of environmental projects to build a shared vision of holistic catchment management.

As part of this vision, we are inviting developers, social landlords, and other local partners, such as local authorities and local economic partnerships, to identify public and private sector partners to facilitate a pathfinder project on new build housing, social housing retrofit and owner-occupied retrofit. This needs to include options on greywater reuse. This should look at integrating drainage and water in a holistic approach. Sustainable Drainage Systems adoption remains a critical barrier to reuse options and needs urgent attention – as the recent Westminster sustainable business forum (WSBF) report "Bricks and Water" <sup>27</sup> highlighted.

<sup>27</sup> Westminster sustainable business forum, 'Bricks &

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## Case study: Central Park Sydney <sup>28</sup>

This innovative new development is served by Central Park Water, servicing 4,000 residents and 15,000 workers and visitors daily. The world's largest membrane bioreactor system, with ultraviolet and reverse osmosis treatment in the basement of the building, provides water to 50-70% of non-potable uses including toilet flushing, washing machine use and garden/green wall irrigation.

### Water sources include:

- rainwater from roofs
- storm water from impermeable surfaces and planter box drainage
- groundwater from basement drainage systems
- sewage from an adjacent public sewer
- sewage from all buildings within the Central Park community
- drinking water from the public water main.

Wider benefits stated by Central Park Water include lower infrastructure charges for developers, quicker land release speeds for development and lower bills for customers. Central Park Water also supplies recycled water to surrounding buildings, including the Institute for Sustainable Technology. A range of similar schemes are being developed in New South Wales, including an additional eight communities and more than 25,000 dwellings.

## Local Plan target

Every Local Plan in a severely water stressed area should include the target of 110 litres per person per day.

Changes to Part G of the building regulations in 2010 for England and Wales require that the water use of a home is no more than 125 litres, per person, per day. In areas of water stress there are optional Technical Standards (National Planning Policy Framework (England)) that set out how local planning authorities could introduce a tighter requirement of 110 litres, per person, per day. We want every Local Plan to do this.

[Water: a plan of action for building homes and managing water in England', Policy Connect, 2018, p.5](#)  
28 Frasers Property, 'A sustainable habitat', Central Park Sydney, 2013

## Act now!

By implementing some simple measures, we can help tackle the water crisis and change the way we all view and value water. We've got a big challenge, but we've also got hope.

We need your help to make sure we have enough water for now and our future generations. Together we can bring about genuine meaning and lasting change.

Act now and join our campaign visit [www.affinitywater.co.uk/ourpetition](http://www.affinitywater.co.uk/ourpetition)

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