
WSBF Roundtable 5th February 2020

Water Efficiency & Property Resilience

Top Lines

- **Pumping, treating and heating water are energy intensive processes.** Water efficiency will therefore be crucial in meeting the UK's net-zero requirements.
- **The price we pay for water is falling.** Bills are lower now than they were ten years ago in real terms and it is difficult to get consumers to value something that is so cheap and widely available. It is unusual to have a resource where the price is going down, but the value is going up.
- **Feedback from last year's DEFRA consultation on 'measures to reduce personal water use' is encouraging.** Results indicate that a strong majority of consultees were in favour of introduction of mandatory water labelling.
- **The current way that water efficiency is calculated (Part G of Building Regulations) is fundamentally flawed.** Similarly, setting a national Per Capita Consumption (PCC) target on this basis is therefore unlikely to be meaningful.

Recommendations

- **Government should introduce a mandatory water label linked to minimum standards for fixtures, fittings and water using products.** Updates to building regulations would quickly rid the market of the least efficient products and help reduce PCC to around 100litres per person, per day (lpppd).
- **Mandating a water label will give certainty to the market and ensure a level playing field.** These requirements can then be passed down the supply chain to manufacturers and to allow subcontractors to develop appropriate skills.
- **Compliance with the requirements of a water label should form the basis of a Property Resilience Certificate (PRC) for water efficiency.** However, to achieve the highest rating within a PRC (and reduce consumption below 100lpppd), water recycling measures are likely to be necessary.
- **New homes should only be built if their consumption can be offset elsewhere in the catchment.** This concept of water neutrality should be written into local plans, especially for forthcoming major development such as the Oxford-Cambridge arc.
- **We need to be bold when embracing new technology.** Adoption of innovative solutions (such as air-flush toilets) can help drive down consumption and create new jobs.

Introduction

In June 2018 the [Westminster Sustainable Business Forum](#) (WSBF) published its inquiry: *Bricks and Water*, chaired by former Liberal Democrat MP Angela Smith and Conservative Peer Baroness McIntosh of Pickering. The report comprised an evidence-based assessment of the challenges associated with sustainable housebuilding and water management in England. Building on the recommendations set out in this report, the WSBF is embarking on a follow-up project, which will explore property resilience for new and existing homes, to feed into the Government's Future Homes Standard and related legislative changes during this Parliament.

This discussion forms the first evidence session to support the forthcoming inquiry and focussed on the topic of water efficiency. The roundtable was kindly chaired by Shadow Environment Secretary, Luke Pollard MP.

Speakers

Luke Pollard MP (Chair)

- The link between carbon consumption of the water sector and the climate emergency has not been widely recognised. When this happens, both industry and consumers will have to do things differently. Changes will be required in infrastructure, our approach to natural capital, and regulation.
- Sharing best practice, both within the industry and between sectors will be crucial. Water needs to learn the lessons of the energy sector in terms of labelling, awareness, and behaviour change. We can also learn from parts of the world who face problems with supply, such as Cape Town and parts of Australia.
- Ultimately, if we don't start using less water, then we will either have to start building fewer homes or be more honest with consumers that security of supply can't be guaranteed.
- Because we use water every day, people feel familiar with it and it becomes very difficult to implement behavioural change. Commitment to reducing leakage can come from both consumers and water companies.

Baroness McIntosh of Pickering

- Policy Connect's Bricks and Water inquiry was unique in bringing developers and water companies together. Support from house builders is important, as they will be bringing water efficient homes to market in future.
- The use of Sustainable Drainage Systems goes hand-in-hand with water efficiency. The most innovative SuDS can capture surface water runoff from a site, clean it using organic processes and recycle it to the building for non-potable use.

- A catchment-based approach is welcome and we need better engagement with the private sector when implementing drainage systems.
 - Building regulations should continue to be used as a vehicle to drive water efficiency, but on the basis of a water-labelling system for fixtures, fittings and water-using products.
 - We can learn lessons from Scandinavia where personal water use is significantly less and water efficient products have been commonplace in the market for decades.
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Rob Scarrott – South West Water

- South West Water supplies 2.2 million customers with water and they have a growth forecast of 20% over the next 25 years, which presents a challenge from both a climate resilience and demand perspective.
 - The price we pay for water is going down. Bills are lower now than they were ten years ago in real terms. It's unusual to have a resource where the price is going down, but the value is going up.
 - Water efficiency needs to be simple. South West Water are working to educate customers by undertaking water audits. The aim is to get customers to think about water efficiency in the same 'automatic' way that they currently think about recycling.
 - The carbon impact of water includes a variety of 'hidden' factors, including the cost associated with pumping water and the chemicals (often imported from Europe) used to treat it.
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Professor Louise Bracken, Durham University

- The Water Hub is a collaborative project between Durham University, the Environment Agency, Durham County Council and Northumbrian Water, which aims to encourage enterprise and innovation in the water industry. It works with SME's to embed solutions for water efficiency, Sustainable Drainage Systems, and flooding across the northeast.
 - We must embrace technology as a way to lower consumption. Innovations such as air-flush toilets use a fraction of the water required by regular cisterns and these technologies are available for adoption right now.
 - Many of these solutions are suitable for both new homes and retrofit and can often be installed without the consumer even knowing that there has been a change. They also have collateral benefits such as job creation.
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Lydia Makin, Waterwise

- Introduction of a mandatory water label, linked to minimum standards for fittings is the single most important thing that Government could do to reduce water consumption.

- Waterwise’s research shows that introducing a label could reduce Per Capita Consumption (PCC) by 27 litres per person, per day (lpppd). Water labelling is key to reducing consumption below 100lpppd.
- The evidence for the benefits of labelling is documented in research and has been demonstrated as viable in several countries around the world. There is clear evidence of success for a label of this kind in Australia, and it will be extremely similar to the label we already have for energy.
- Initial feedback from last year’s DEFRA consultation on ‘measures to reduce personal water use’ indicated that 82% of respondents were in favour of a mandatory water label, with 69% strongly in favour.
- A label would send a positive message to the public about water consumption and would benefit domestic and non-domestic buildings. It could also be used as part of a fittings based approach to update building regulations for new homes.

Discussion

- Data from home audits indicates that, on average homes are using between 110 and 140 lpppd, however, there is a huge amount of variability around these figures. Setting a national PCC target should be approached with caution and not used as a target within building regulations. Rather, consumption should be managed via introduction of a mandatory water label. This would improve water efficiency and quickly rid the market of the least efficient products in the same way that the EU energy label has done for energy efficiency standards.
- Recently obtained consumption data from smart meters indicates that a significant part of this problem is internal wastage from leaking toilets and urinals, which can easily double the average home’s water consumption. We must therefore move away from the efficiency calculation methodology currently set out in Part G of Building Regulations, as this calculation is so heavily influenced by factors that we can’t control, such as leakage and consumer behavior.
- Adoption of a mandatory water label, linked to minimum standards for fixtures, fittings, and water using products could simplify existing building regulations and inform consumers at the point of sale. This is crucial as new homes are only a small part of the problem and the most significant gains will be made through retrofit of the existing housing stock.
- Water labelling is likely to reduce consumption to around 100lpppd on average and a requirement for this could be incorporated into a Property Resilience Certificate. For example, for a home to achieve a ‘good’ rating all fittings and water using products might have to meet label grades A or B. However, to achieve an ‘excellent’ rating (and reduce consumption below 100lpppd) then additional measures are likely to be required.
- These measures could either focus on technology solutions (such as air-flush toilets) or water recycling (rainwater harvesting and grey water reuse). However, devices that use recycled water for non-potable use should be exempt from the requirements of a water label (or given the highest rating) to avoid unintended consequences.
- Achieving PCC of 100lpppd by using a water label is not an issue for responsible developers. However legislating for this is important, to give certainty to the market and ensure a level playing

field. These requirements can then be passed on down the supply chain to manufacturers and to allow subcontractors to develop appropriate skills.

- 95% of all leaky toilets are dual flush products. Better testing and fitting standards would drive change along with consumer education, as 50-83% of customers don't know which button to push. If we can design and establish what good looks like, then the BSI can validate this by issuing a Kitemark.
- The concept of water neutrality should go hand-in-hand with water efficiency. New homes should only be built if their consumption elsewhere in the catchment. This concept could be written into local plans, especially for forthcoming major development such as the Oxford-Cambridge arc.
- Water is a public good and we should learn lessons from the energy sector in the way we consume it. However, consumers often don't value water in the same way because it is so cheap. Given this low cost, subsidies for water saving devices generally won't work so change must come in the form of regulation. The price of the good is not reflective of its value.
- There is little in the Environment Bill on water efficiency. Amendments to clauses relating to resource efficiency could be a vehicle to mandating requirements for water efficiency and labelling. Looking further ahead, we should target changes to building regulations and the forthcoming Future Homes Standard.

About the organisers

The Westminster Sustainable Business Forum (WSBF) is Policy Connect's coalition of high-level stakeholders informing better policy-making on sustainability issues for the built environment.

The WSBF's members include key UK businesses, Parliamentarians, Civil Servants, academics and third sector organisations. Providing a politically neutral environment for knowledge sharing and discussion on sustainability policy, we help to impact the agenda in government and are a trusted source of independent information and advice for policymakers.

We publish authoritative research reports; impact on government policy through our in-depth round table policy discussions and outputs; and inform the wider sustainability debate by convening key stakeholders at our larger policy events and seminars. The WSBF works in the policy areas of construction, infrastructure, water, sustainable planning, green finance and natural capital. We are cross-party, independent and not-for-profit. For more information on our activities, please visit: www.policyconnect.org.uk/wsbf

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