

Nathan's reflections from the International Water Association Efficient 2023 Conference Bordeaux September 13th-15th 2023

Overview

With over 100 presentations over 3 days from countries around the world [Efficient2023](#) was very much an international feel to the conference and this was one of the highlights for me. A chance to compare common water efficiency challenges and to explore potential solutions with colleagues from Canada, Australia, Brazil, France, Portugal, Germany, Spain and the USA. From the UK we had representatives from Defra, Environment Agency, Essex and Suffolk Water, WRc and the Greater London Authority.

I have picked out a few highlights below, grouping them by theme.

Frameworks for water efficiency programmes

Our presentation on the new UK Water Efficiency Strategy to 2030 went down very well with several enquiries following the presentation.

There were also a couple of examples of water efficiency frameworks for planning, undertaking and evaluating water efficiency programmes. This one from [New South Wales](#) in Australia looks particularly relevant and includes a spreadsheet tool that poses key questions and captures the responses. Something like this could be adapted for the UK and centrally collated with the collation made available to help disseminate learnings and evaluations.

In addition, a framework has been developed in [California, USA](#) which is linked to new statutory standards for indoor water use and outdoor water use.

The Environment Agency presented on the development of the statutory water demand target in England with feedback comparing it positively to some similar targets set in the USA.

Water neutrality and water reuse

There were a number of sessions and a keynote on water reuse and the general view was that it is a big and largely untapped (pardon the pun) opportunity area for water demand management alongside in property leakage reduction.

In this [USA example](#) in San Francisco, which was presented as a keynote, a legal ordinance is used to require developments of over 40,000 square feet to submit a water budget. Water reuse has also been required since 2015 for larger developments with reuse now required in all new developments over 100,000 square feet (9290 square metres). 45 installations have been permitted with another 29 in planning and there is [a useful guide](#). One of the big hurdles they had to overcome for reuse was initial opposition from the public health department. The water department worked with the public health department to move from end point monitoring of coliforms to a new risk based public health framework for water reuse schemes which seeks to limit the number of infections in the exposed population to <1 in 10,000 per person per year. Log reduction targets have been established for bacteria, protozoa and viruses. Their website also has a useful resources section including case studies in the city and globally. They are currently assessing technologies such as recirculating showers and in washing machines. It feels like there are lessons in San Francisco that could be built on in the UK. For example Defra and DWI could work together on a risk based framework and Cambridge, which has growth and water availability challenges, could be used as a pilot for a roll-out of a similar approach to San Francisco.

A [Blue Ribbon](#) initiative has been set up which provides support and guidance on water reuse across 12 USA states and for several cities and states of Canada.

On water neutrality in addition to our Waterwise presentation there was one from the USA which highlighted their [Net Blue](#) guidance for water neutral growth including model legal ordinances and approaches to offsets.

Smart metering and data privacy management

There were two excellent presentations from France (Suez) and USA (in Georgetown) on their roll-out of smart water metering and how they were dealing with the amount of data generated developing dashboards and indicators for water efficiency and leakage managers and also tools for water users. There were lots of parallels with the learnings to date from Thames and Anglian in the UK. For example, smart meters in France are highlighting that about 7% of water volume entering homes is leaking. They are also looking at tariff options in France making use of the high resolution data.

There was also a lively discussion on data privacy. The point was made that this ultimately rests with the individual whose consent needs to be sought which means people need to see the benefits to them. However, in several cases such as leakage a legitimate interest argument appears to have been made in France to share and analyse the data with other organisations who are assisting the water provider. In the USA the smart meter data has been used to identify people breaking a ban on outdoor watering with warning letter and fines sent to them. In the USA there is a [California Data Collaborative](#) that has been set up to help manage data privacy and sharing challenges.

Water labelling

The Australian government managers of their mandatory [water labelling scheme](#) were at the conference. All relevant products to be sold in Australia have to be registered with WELS and display the label at the point of sale.

Their current focus is on tightening the minimum standards already used (from 3 star to 4 star) and they have looked at a number of ways this could be done in Australia through plumbing codes or through tightening of existing minimum standards in their water label. The latter option is preferred. They also described how they have successfully worked with EBay to ensure that online product sales are displaying the water label.

Showering and bathrooms of the future

Chris Philpott from The Water Conservancy in Australia ran some videos of youngsters in Sydney talking about how they spend 30 to 60 mins in the shower and had no idea how much water was being used and it was clear this is an area of concern for water managers across several countries who are seeing similar trends. There were interesting talks on attempts to nudge showering behaviours both among students at Cranfield in the UK and water customers in Bordeaux France however both were small scale studies and the latter was very short term.

It very much feels like a larger scale piece of research in this area is urgently needed looking at both technological and behavioural options to address the trend to longer and more frequent shower use.

Stuart White from the Institute of Sustainable Futures in Australia presented on some research [they have published](#) into the homes and bathrooms of the future and how smarter devices may help reduce water and energy use.

Water saving rebates

It was striking how many water providers and municipalities offer rebates to customers to fit more water efficient products including showers and toilets and also money to reduce outdoor water use for example “cash for grass” schemes to encourage people to convert from irrigated lawns to other outdoor options that use less water.

Behaviour change campaigns and Water Night Australia (and UK!)

Other than the work on showering there was surprisingly little on behaviour change with the focus much more on policy and technology. An exception to this was the presentation on [Water Night in Australia](#) (October 19th). We took the opportunity at the conference to announce that we are to run [Water Night in the UK](#) as a pilot in 2023 and to encourage other countries to come on board in 2024.

Next stop Melbourne Australia?

The conference was closed by Aaron Burton from Defra, who also chairs the IWA specialist group. As well as thanking the organisers, speakers and attendees for such a great event he also suggested that Efficient2025 could be in Melbourne, Australia.