Waterscan

Water matters

Insight for the UK's public sector

Contents

Introduction

Everyone needs water. It underpins health and wellbeing. It sustains education and economic growth. It creates places for communities to come together.

Think for a second...

How long could your frontline services continue to operate without water? The chances are, you've got about 10 minutes before vulnerable members of society are put at risk. Within a couple of hours, you're in crisis management mode and administrative staff are put under extreme pressure. Within a couple of days, planned budget and resource priorities are out of the window and everyone is demanding action and answers.

Now think for a minute...

When was the last time you analysed water data across your estate? Do you know how much water all your sites consume and how much it costs taxpayers? Do you know where your high-risk areas are and where opportunities for efficiencies lie?

If you're not sure, you're not alone. In most public and private sector organisations, water plays second fiddle to gas and electricity. It's comparatively cheap, it's apparently readily available and there's little stakeholder pressure to act. So, what's the big deal?

Spare ten minutes and discover...

– Why water is the invisible risk across your estate.

– How some local authorities are beginning to manage this risk.

– What you can do to start your organisation's journey to water sustainability.

Every day, over 50 billion litres of water are taken from the environment for public and commercial consumption in England and Wales.[1]

Globally

Less than **1.2%** of all water on Earth is available for human use.[2]

By 2025, **two-thirds of the world's population** may be facing water shortages.[3]

The financial impact of water risks was **US$301 billion** in 2020; 5x more than the cost of mitigating the risks.[4]

Water stress acts as a multiplier to shortages of other key resources and productivity.[5]
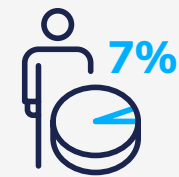
In the UK

By 2050, England will need **28.5% more water** each day to meet demand.[6]

We use an average of **145 litres per person** per day in the UK, compared to 126 litres in Germany.[7]

The water industry expects supply interruptions to increase by **25%**.[8]

7%

Only **7% of business customers** regard water efficiency as a priority.[9]

The invisible risk across your estate

Despite being a core commodity, water is still struggling to make it onto senior leadership schedules. Emissions and waste tend to be prioritised when setting sustainability agendas, targets and action plans.

This needs to change

In roughly twenty years from now, water demand, which is rising due to population growth and urban development, is predicted to exceed water availability, which is declining due to climate change, pollution and aging networks causing leakage.

At this tipping point, when water scarcity impacts our daily lives, everyone will sit up and take notice. That's also the point when it will be too late, far too late.

The water industry regulator, Ofwat, public bodies like Defra and the Environment Agency, and some water companies are working to reduce the probability of water shortages and to put effective flood resilience plans in place.

However, as a major consumer of the UK's available water, every public sector department must play its part if we are to achieve a sustainable future water supply, locally and nationally.

Being proactive on water creates opportunities to:

Improve accountability, transparency and reporting through previously untapped levels of data insight.

Lower bills and relieve administrative burdens, thus improving taxpayer value for money and improving service delivery, thereby safeguarding the continuity of frontline services and community facilities.

Play an active role in supporting net zero aspirations and be able to confidently report on progress.

Enhance resilience to climate change impacts through being more informed about water-related risks.

Realise long-term reputational gains by demonstrating leadership to local communities.

The public sector

It comes as no surprise that the public sector ranks alongside the industrial, agricultural and leisure sectors as one of the UK's heaviest non-household water consumers.

In contrast to commercial operations, however, interruptions to public sector water services have potentially far greater consequences for the health and wellbeing of the communities you serve, while inefficiency impacts every taxpayer, every financial year.

More than any other sector, you are under more pressure, and held more accountable, to make better decisions based on proven needs analysis and benefit projection.

The deregulation of the water market across England and Wales in 2017 created this opportunity to make better decisions.

All you need is expertise and data you can have confidence in.

14%

Leaky taps and pipes waste over 3 billion litres of water every day in the UK. That's over 1,200 Olympic-sized swimming pools.[10]

Unread meters = inaccurate invoices. Across England, **14% of NHH water meters have not been read** for 12 months or more.[11]

77%

77% of complaints in the English market relate to **billing issues.**[12]

Public sector expenditure on water supply increased to £970 million in 2021-22.[13]

Waterscan's public sector customers **financial charges were split**, 30% water supply, 18% waste, 51% surface water and 1% other in 2022.

Over **£44,000 in financial savings** were achieved for Waterscan's public sector customers in 2022.

Doing the right thing

Some public sector bodies are waking up to water. Here are two examples of councils that are taking leadership on water management.

Blackpool Council: better for everyone

In line with all local authorities in recent years, Blackpool Council has had to make tough spending decisions to change or secure much needed and respected services and think innovatively about opening new opportunities.

It set out to be 'big on ideas and ambition, never straying from the idea that 'progress' – in spite of financial and social context – should be its watchword'. Accordingly, it embarked on a wave of exciting projects and initiatives to grow its economy and strengthen its communities as part of a stated aim to make life better for everyone.

With a clear focus on prevention, resilience and delivering more with less, Blackpool Council was the first local authority to take the innovative step towards managing its own water supply. Aside from making monetary savings, the Council wanted to better understand its water usage through more regular meter readings and to be able to financially plan more efficiently.

In 2018, the Council applied to Ofwat for a water and sewerage licence to Self-Supply with the support of Waterscan and switched all its supply points the same year. Three years after turning to Self-Supply, the Council had saved in excess of £150,000. This was achieved by paying wholesale water prices without the retailer margin, as well as through efficiency savings generated by site-level investigations identified by newfound access to good actionable data and consistent billing.

"A self-supply licence will mean we're an active participant in the water market. It will give us much more control over our water use and effluent discharge, enable us to make effective and confident strategic decisions based on accurate information, and build on the success of existing programs like our Climate Emergency Declaration."

Cabinet Member for Regulatory, Compliance & Corporate Services

Blackpool Council

Sefton Council: words into action

In 2019, Sefton Council declared a Climate Emergency. As a low-lying coastal community, flooding and erosion is already an issue but higher temperatures increasingly place a strain on its most vulnerable residents and water supply.

Supplying water and treating wastewater is also a carbon intensive process. Sefton Council's water emissions are approximately 90 tCO$_2$e – 1% of its carbon footprint – so it was considered important to reduce water consumption to support its work on reducing its carbon impact.

The Council was becoming increasingly and acutely aware of water wastage and rising costs across its 400+ water supply points but was impeded in its attempts to quantify and address these issues due to a lack of accurate information and support from its incumbent water retailer. This placed a burden on the team internally, and so it began to analyse options in the wider water market. Ultimately, Sefton Council chose to Self-Supply, enabling it to manage water effectively and ensure that it isn't invisible or segregated from other environmental issues.

In its first year, Self-Supply saved a considerable amount of taxpayers' money simply by not paying retailer margins: an immediate financial saving that could not be made in any other way. Furthermore, an unprecedented level of accurate data has highlighted prior billing errors that it is now able to resolve, and it has visibility of sites that might need focused attention. Importantly too, Sefton Council is helping to put public sector water needs and perspectives on the water market agenda via the Self-Supply Users Forum. It has topped market performance tables with a near perfect 99.6% score.

"If you've never scrutinised your water bills before, do so, because you will reap the benefits of acting and not just in financial terms. The positive impacts of this work will be seen strategically and socially in protecting our people, businesses and the natural environment."

Environmental Management (Utilities) Officer

Sefton Council

Make water work for you

It is critical that those responsible for utilities across the public sector are better supported in their efforts to conserve water and boost value for money, noting that, while saving water is a success in itself, advances here will also positively impact just about all other sustainability goals like emission reduction.

If you are yet to instigate a water resilience strategy, it may seem daunting at first and perhaps not much of a priority right now. Rest assured though, that the benefits of doing so are numerous, usually resulting in a swift return on investment and ongoing benefits to your community that will be realised for decades.

So, what are the options?

Engage with your water supply chain – an attractive proposition since the water market opened up to competition in 2017, thus enabling non-household water customers to choose who they would like to supply them and work towards generating cost and consumption savings. Running a procurement tender is challenging without robust data sets and insight, especially when key staff are already stretched, so some organisations choose to work with a specialist consultancy to ensure accuracy and efficiency when reviewing their water supply options.

As we have seen in Blackpool and Sefton, some local authorities have gone further in setting new procurement standards by choosing to Self-Supply their water. While not suitable for all, Self-Supply allows organisations to take complete control over their water consumption and costs, and make confident, transparent, data-driven decisions.

Access to this detailed data frees up internal resource and supports site-specific action plans which can be prioritised, inform regional efficiency strategies and support nationwide sustainability ambitions. Self-Supply also offers an untapped potential to give the public sector considerable influence in shaping the future of the competitive water market too; appropriate given the scale of its consumption.

So, where do you start? How do you maintain health, wellbeing and financial value without compromising on water efficiency – and ultimately, secure a sustainable local community?
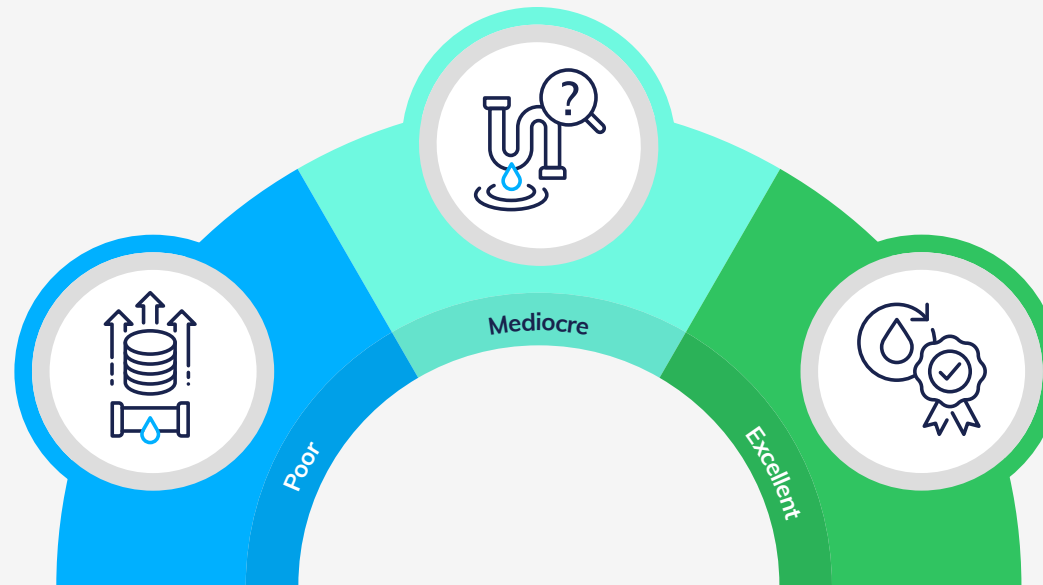
Assess and act

1. Benchmark your operation.

2. Review our ten steps to water resilience plan.

Step 1: assess

Benchmark your operation

Understand what leadership on water looks like

Poor

These companies will just pay their water bills and not give any further consideration to water. Their back-office staff will be spending a lot of unnecessary time on billing administration and supplier liaison because of poor trade effluent set ups, inaccurate meter readings and they could even be juggling multiple water retail contracts.

They're likely to be paying far more than they need to but getting involved in the open water market seems daunting and an extremely low priority (after all, "it's much cheaper than energy!"). The result is that their businesses are operating with continuity and cost risks.

Mediocre

These companies will have some awareness of their overall water consumption but will not be sure how or where it is used, nor how much of this is essential or how much could be saved.

They're likely to take a reactive approach to efficiency measures, perhaps only fixing leaks when they cause disruption to operations and will only consider water saving equipment when they need to replace something.

It's likely they will have a number of Long Unread Meters (LUMs), meters which haven't been read for over 12 months, which leads to inaccurate data and billing.

Excellent

These companies will have full visibility of how much water they use, and where, down to site level across all operations.

This visibility means that they'll be able to operate in a lean and efficient way with close to no consumption or cost wastage, fully engaged staff who value water and with confidence that no water-related event will adversely impact business operations.

They are also likely to be working proactively and collaboratively with others to protect local supplies and set new benchmarks in corporate social responsibility.

Step 2: act
10 steps to water resilience

Some simple steps to start reducing risk and building resilience across your operations

1 Evaluate your current position

Assess which parts of your operations could be affected by a potential water shortage and the level of these impacts. Make sure you include facilities that may not consume a lot of water but would have a big impact on the day-to-day running of your business if they couldn't be used, such as staff welfare amenities. Then, expand your assessment to consider the impact of water shortages to your wider stakeholders including customers and suppliers.

2 Understand your vulnerability

Consider the geographical location of all of your premises: are you in a water-stressed catchment area or one that is prone to low rainfall? Find out if there is a lot of local development planned as this may increase demand in the catchment area(s) in which you operate. The Environment Agency has much of the information that you need.

3 Build your business continuity plan

Ensure that all of the business threats identified in steps one and two are included in your corporate risk assessment and business continuity plan. Consider what measures need to be put in place to mitigate these risks.

4 Benchmark your usage

It's also useful at this stage to benchmark your usage against similar premises or within your industrial sector to understand if your water consumption compares favourably or otherwise. A poor benchmark position could lead to negative reputational impacts as well as operational ones.
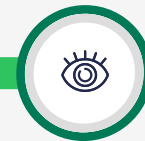
5 See your blind spots

Obtain full visibility of water consumption across your estate – ask your water retailer for this information and insist that it is actual (not estimated) and from a recent (less than three months old) meter reading. This should include how much water you're using, where it's all going, how much of it is necessary and if any is being lost through leaks or other wastage. If you cannot get full visibility, this exercise will highlight blind spots.

10 Plan for emergencies

Create back-up plans for what are likely to be inevitable water shortages in the future and support these with an effective crisis communications plan for effective deployment. These could include third party emergency supplies, for example. If you need to report an emergency issue, contact your wholesaler directly - you can find links on our website.

9 Collaborate with your neighbours

Joining forces with other stakeholders in the same water catchment area will proactively increase overall resilience for mutual benefit. Catchment Based Approach Partnerships bring together businesses, local authorities, water companies, landowners and public bodies to protect our valuable water environments.

8 Reach out to your retailer

Speak to your water provider(s) to advise them of your concerns and forward plans. Understand their plans and priorities to boost resilience and ask about any incentives they could offer to support your efforts.

7 Increase your efficiency

With full visibility of usage and the bigger environmental picture, you will now be able to address any areas of your business that could use less water. Prioritise your sites that are in water stressed geographies to guard against a water outage and protect natural resources. Perhaps there are leaks on some sites which could be easily rectified. Or, where there are no leaks, a staff awareness and engagement programme may be required.

6 Address your blind spots

Any gaps in your data set can be addressed through technologies like automated meter reading (AMR), data loggers and even good water management software. Speaking to colleagues on the ground is also likely to bring valuable insight to the table. Your water retailers should be fully supportive of your efforts here.

1   https://www.discoverwater.co.uk/where-water-comes-from

2   https://www.cdp.net/en/water

3   https://www.worldwildlife.org/threats/water-scarcity

4   https://www.cdp.net/en/research/global-reports/global-water-report-2020

5   https://www3.weforum.org/docs/WEF_Global_Risks_Report_2023.pdf

6   https://consult.defra.gov.uk/water-efficiency-labelling/water-efficiency-labelling/supporting_documents/Water%20efficiency%20labelling%20consultation.pdf

7   https://www.discoverwater.co.uk/amount-we-use

8   https://www.water.org.uk/news-item/water-2050-white-paper/

9   https://www.ofwat.gov.uk/regulated-companies/markets/business-retail-market/five-years-open-for-business-taking-stock-review-of-the-fifth-year-of-the-business-retail-water-market-2021-22/

10 https://www.discoverwater.co.uk/leaking-pipes

11 https://mosl.co.uk/documents-publications/5602-2021-22-ampr-final/file

12 https://www.ofwat.gov.uk/publication/five-years-open-for-business-taking-stock-review-of-the-fifth-year-of-the-business-retail-water-market-2021-22/

13 https://www.statista.com/statistics/298895/united-kingdom-uk-public-sector-expenditure-water-supply/