FUTUREPLUS

WATER REDUCTION GUIDE

INTRODUCTION

Conserving water is an important part of responsible business practices, particularly in times of drought, or if operating in water-stressed regions.

Over 2 billion people live in already water-stressed countries. The Middle East, North Africa, and South Asia are the most affected regions, but many parts of Europe and the UK also suffer from water stress. In the UK, areas of England including Sussex, Cambridgeshire, Suffolk, and Norfolk are already experiencing water shortages, with additional demands on water supply from businesses and new housing developments putting huge pressure on water resources.

Water stress is essentially when the demand for water exceeds the available supply, or when poor water quality restricts its use.

The World Resources Institute Aqueduct Water Risk Atlas is a great tool you can use to check whether your business is operating in regions of 'High' or 'Extremely High' water stress.

WATER INTENSIVE INDUSTRIES

All businesses, regardless of industry, should evaluate how water is used within their operations and value chain and identify opportunities to reduce consumption, but this is particularly relevant if you are operating in regions of high water stress, and/or in water intensive industries such as:

Agriculture: Globally we use approximately 70% of the world's freshwater for agriculture and crop irrigation

Textiles: The fashion and textile sector uses a lot of water, particularly in cotton production and fabric processing. Dyeing, washing, and finishing fabrics also consume significant amounts of water.

Energy Production: Power plants, especially thermal and nuclear plants, require water for cooling. Water is also used in the extraction of fossil fuels.

Beverage Production: Producing drinks like soft drinks, beer, and bottled water requires a lot of water, not just in the final product itself. For example, producing a single litre of beer can require hundreds of litres of water.

Construction, Mining & Automotive: The production of cement, steel, lumber, and tires, as well as mining and quarrying, are all water-intensive activities. Together, they account for about 4% of global water consumption.

MEASURING WATER USE

Every business uses water, but the range of processes and tasks, as well as their relative importance to the business, can vary considerably.

While overall water usage (i.e. your bill total) is a good place to start, if you can break down your data, for example by department, building, activity, or time period, the more insights you will be able to draw from it.

Access to high-quality water data may require you to install additional sub-meters, or automated meter reading technology, to help you understand usage trends in more depth. This might require a little up-front investment, but for businesses using water for anything over and above the basics of drinking and sanitation, the insights that some additional technology will provide could help you to identify considerable cost savings.

💡 ***If you operate in a shared building or workspace and don't have access to your water bills or data, there are still adjustments you can make to conserve water. Keep reading to learn more!***

UNDERSTANDING THE DATA

Once you've gathered all the data available, establish a broad understanding of your business' water consumption patterns.

- Identify high-usage areas, whether departments or specific processes, and track their evolution over time.

- Evaluate the relative proportions of water use; are they logical, or do certain areas appear disproportionately high?

- Examine temporal variations—do they align with expected activity, or are there unexpected spikes, such as nighttime usage?

- Comparing your data with industry benchmarks from similar businesses can provide valuable context.

Consider integrating water-intensity metrics into your analysis, for example water usage per cover for hospitality businesses; water cost per unit produced for manufacturing; and cost per employee for office-based businesses.

This can help to account for fluctuating variables such as business growth, and can also help to signal any potential inefficiencies or leaks that require immediate investigation to restore cost-effectiveness.

WHERE TO START

Check for drips and leaks! In 2021-22, the UK's water industry financial regulator, Ofwat, reported that water companies lost an average of almost 3,000 million litres of water per day via leaky pipes.

Water companies and utility providers are largely responsible for improving water infrastructure, but businesses can play their part by identifying leaking taps and internal pipes, or reporting external leaks to the relevant water company or the local council.

Small behavioural changes can also add up quickly, and educating employees on how they can help reduce water consumption is key. Simple actions include:

- Turning off taps when not in use.
- Using the half-flush option on dual-flush toilets
- Fill a washing-up bowl, rather than running the tap to wash up mugs and dishes.
- Reporting leaking or dripping taps to management teams or building maintenance.
- Filling washing machines and dishwashers to full capacity before turning them on, and using eco-settings.
- Only boiling the amount of water needed in the kettle.
- Using left-over drinking water to feed office plants.

BASIC (AND LOW COST!) WATER-EFFICIENT TECHNOLOGIES

Focusing on basic and low-cost water efficiency can also be a great place to start. Here are some examples of technologies and practices:

- Automatic or sensor taps.
- Dual-flush toilet conversions (while replacing an entire toilet can be costly, handy kits exist to convert existing toilets to dual flush, or use a displacement device in your toilet cistern).
- Installing smart, infrared sensors for urinals (uncontrolled urinals flush continuously, wasting water).
- Installing low-flow restrictors on faucets and showerheads.
- If you have outdoor space:
    - Installing water butts to capture rainwater for watering plants and gardens.
    - Hose nozzles with shut-off valves allow you to control the water flow and easily turn it off when not needed.

WATER EFFICIENCY & CONSERVATION

If you are involved in water-intensive processes such as manufacturing or agriculture, a more comprehensive water reduction plan is both responsible and recommended. A long-term water efficiency and conservation strategy should set out how your business will reduce its reliance on water, now and in the future.

Focus on the highest-impact areas identified during data collection and analysis, setting achievable and measurable year-on-year reduction targets to reduce your consumption, as well as putting in place adaptation measures. For example:

- On-site wastewater/ greywater treatment and recycling.
- Large-scale rainwater harvesting.
- Closed loop manufacturing systems.
- Smart water management systems.
- Advanced leak detection technologies.

Regularly review and adjust your targets based on the data you collect and any changes in your operations. These annual targets will allow you to create a clear roadmap for continuous improvement and demonstrate your commitment to sustainability.

YOUR VALUE CHAIN

If water consumption in your business is mainly driven by your supply chain, talk to your suppliers about how they measure and monitor water use, and what plans they have to reduce it. Consider operational or logistical changes that could help reduce water consumption in your supply chain. Additionally, think about potential water-related risks, such as how a drought might impact your business in the future.

If your customers are responsible for the bulk of water use in your business (for example in the hospitality industry) think about water-efficient technologies you could install to conserve water, and how messaging around water conservation can be communicated.

NEED MORE HELP?

We offer consultancy services if you would like more comprehensive support. You can contact the team at: info@future-plus.co.uk