

## Save Water on your Construction Site

The UK has less available water per person than many other European countries. Population growth and lifestyle changes, coupled with changes in rainfall patterns, have meant that water is becoming an increasingly scarce resource in many regions. In some areas the ongoing removal of water from rivers is damaging our natural environment and is not sustainable.

Saving water is part of being a responsible contractor – it makes financial and environmental sense. Society and our clients now expect companies to avoid wasting water.

Currently you could pay up to £4.88 per cubic meter for your mains water and wastewater disposal, not including the standing charges. When you reduce water use on site there is a direct cost saving. However, in addition, the value of the environmental benefits from using harvested water or being water efficient can be significant

The 10 simple tips outlined in this guide can typically save in the region of 15 - 25% of your water consumption, or up to 85% where leaks are identified and repaired. Why not put this up as a poster to raise awareness on your site?

If you're interested in doing more then consider an audit of your site following this process:

1. Appoint a champion – everyone has a part to play but a champion can promote interest.
2. Raise awareness with a water toolbox talk
3. Fit a water meter and take regular readings weekly, or at least monthly (this will aid identification of leaks once you have recorded your base pattern of use).
4. Implement the 'water hierarchy' in planning and delivery.
5. Implement efficiency measures to further reduce water use or (re) use harvested waters.
6. Monitor, record, and report the effectiveness of the measures

If you want to know more, then a wealth of information is available to assist you. Please see [page 3](#) for relevant links.

# How Can You Save Water?

## BEHAVIOUR

### Report Leaks Promptly

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- 💧 An unfixed leak can be the most significant water use on site.
- 💧 Leaks can come from damaged washers in taps, worn valves and corroded or damaged pipework – including hoses.
- 💧 Make sure to report leaks as soon as spotted to the site management team to make sure they get repaired. Check pipework after freeze/thaw weather as well, as it may be susceptible to bursts and joint failure.

### Fit trigger guns to hoses

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- 💧 Hoses left running when not in use waste a lot of water in a short time.
- 💧 Fit robust trigger guns to hoses so that flow can be controlled at the point of use.

### Key

£ Indicative scale of implementation cost

😞 Potential water saving benefit

## ONSITE ACTIVITIES

### Dust suppression vehicles

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- 💧 Most suppression techniques use a lot of water.
- 💧 A hydraulic spinning system can be 90% more water efficiency than a splash plate, provided mains-quality water is available.
- 💧 Chemical additives are an option to assist in reducing the volume of water needed.
- 💧 Note that water containing concrete can not be used for dust suppression activities but can be used for other activities including concrete washout.

### Wheel washing

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- 💧 Some drive through wheel washers don't recycle water.
- 💧 If you can, commission a closed loop wheel wash to reuse the process water.
- 💧 Waterless systems are another option that use angled steel grids to clean debris from tyres requiring no water or power and that can reduce the need to hire road sweepers.

### Commissioning water use

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- 💧 High volumes of water are used during building envelope and services commissioning and testing.
- 💧 Plan for these activities considering water recirculating and minimisation. The water used for flushing building services should be isolated as soon as possible after the flush water turns clear.

## WELFARE FACILITIES

### Flushing toilets

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- 💧 Toilets can use more water in a flush than is needed – they can also be a source of leaks which might not be visible to the eye but waste a lot of water.
- 💧 If water is constantly running adjust or replace the inlet valve.
- 💧 Modern low flush cisterns of 4.5 litres offer highly effective performance. If you want the lowest water using toilets around the Propelair toilet uses just 1.5 litres per flush.

### Urinal flushing

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- 💧 Urinals often flush at regular intervals regardless of use.
- 💧 Consider the installation of a hydraulic valve or motion sensor to control flushing based on actual usage.
- 💧 Waterless urinals are another option.

### Running taps

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- 💧 Flow from taps is often more than is needed.
- 💧 Consider if it is possible to adapt taps by either fitting a flow regulator or aerating tap insert. Changing the tap is another option – and always remember to turn them off when not in use.
- 💧 Report dripping taps and get them repaired to prevent wasted water.

# Need More Information?

## The following websites provide specific tips and information on how to reduce water use:

A Water Toolbox Talk is available to complement this guide. It can be used to raise awareness throughout your workforce. See: <https://www.constructionleadershipcouncil.co.uk/workstream/net-zero-carbon-workstream/>

The Supply Chain Sustainability School has a selection of resources relating to water available. See <https://learn.supplychainschool.co.uk/local/tactionplans/resources.php?subtopics=water#>

The Considerate Constructors Scheme <https://www.ccscheme.org.uk/> is a not-for-profit independently managed organisation that supports and guides positive change in the construction industry. Their site includes case studies and examples of effective and efficient water management.

## These websites might also be of interest:

CEEQUAL is a Civil Engineering Environmental Quality Assessment and Award Scheme. See [www.ceequal.com](http://www.ceequal.com)

The Construction Leadership Council <https://www.constructionleadershipcouncil.co.uk/about/> work with government and industry organisations to promote industry initiatives.

The Construction Industry Council <https://www.cic.org.uk> is the representative forum for the professional bodies, research organisations and specialist business associations in the construction industry.

Waterwise <https://www.waterwise.org.uk/save-water/> is an independent, not-for-profit UK NGO focused on reducing water consumption in the UK.

Standpipe hire for most water companies is handled by Aquam Water Services Ltd. <https://www.aquamcorp.co.uk/legal-requirements>  
All approved standpipes are fitted with an anti-pollution device to prevent back flow which reduces the risk of contamination entering the public water supply. Standpipe operators should be competent in their use, and can benefit from training to support 'calm' network operations, preventing leaks and burst.

Guidance on treating and using water that contains concrete and silt can be found here:

<https://www.gov.uk/government/publications/treating-and-using-water-that-contains-concrete-and-silt-at-construction-sites-rps-235>

## Want even more information?

Try the CITB GE700E "Environment Book" <https://shop.citb.co.uk/construction-site-safety-environment-ebook>

CIRIA's Environmental good practice bookset (Bookset 4) <https://www.ciria.org/>

This guide has been produced by the GCB Resources, Waste and Circular Economy Group with expert input from Carmen Snowdon of the Water Research Centre Ltd and Martin Ballard of Wates Group.