

# Guide to saving water in the home



Challis  
Water Controls

Saving water, saving energy, saving the *planet*

[www.alchallis.com](http://www.alchallis.com)

# WHY SHOULD WE SAVE WATER?

Water is not as abundant in England and Wales as you would think. We only have 1,334 cubic metres (m<sup>3</sup>) per person a year – much less than France (3,065 m<sup>3</sup>) or even the hotter Mediterranean countries of Italy (2,785 m<sup>3</sup>) and Spain (2,775 m<sup>3</sup>).

South East England has even less water per person due to its high population density and low rainfall. The Thames Valley has only 266m<sup>3</sup>, only a fifth of the England and Wales average.

Dry winters have the biggest impact on water resources. Winter rain tops up groundwater supplies while summer rain only helps reduce water consumption as we don't have to water our gardens or wash our cars. Saving water will make sure that the water we do get lasts, particularly as it is impossible to predict how long a drought will continue.

Water shortages don't just affect us: they can also seriously harm our environment. Our water comes from rivers and groundwater so every drop we use has a direct effect on the environment.

Fish, wetland birds and other wildlife that rely on ponds, rivers and streams struggle to survive when these dry up or run low. Sources of food and breeding sites for wildlife can be lost and fish can die through lack of oxygen.

The average person in England and Wales uses 150 litres of water every day. Most of it is used for washing and toilet flushing, but it also includes drinking, cooking, car washing and watering the garden. We use almost 50% more water than 25 years ago, partly because of the use of power showers and other water using household appliances.

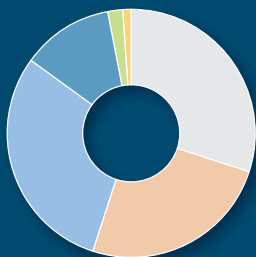
It's vital that everyone uses water wisely and not just during a drought or if we live in an area with water restrictions. We must use water efficiently to make sure that we have enough water and at the same time protect our valuable natural environment, now and for future generations

*We should all use water wisely every day.*



'The average person in England and Wales uses 150 litres of water every day'

## Household water use in the UK



Flushing the toilet	30%
Baths and showers	25%
General use	30%
Washing machines	12%
Outside	2%
Dishwashers	1%

## Calculate your household water usage

There's lots you can do to save water – Lets start by identifying how much water you use in your home.

Activity	Average amount of water used (litres)	Multiply by	Number of times each day	=	Daily total
<b>BATHROOM</b>					
Bath	80	x		=	
Power shower	70	x		=	
Ordinary shower	35	x		=	
Old toilet cistern	13	x		=	
Modern toilet cistern	9				
New low volume cistern	6	x		=	
<i>Deduct this amount each time the toilet is flushed if the cistern is fitted with a water saving device</i>	3	x		=	
Hand washing and teeth cleaning (per person per day)	10	x		=	
If carried out with the tap left running (per person per day)	15				
<b>KITCHEN</b>					
Washing machine (full or not)	80	x		=	
<i>If you use the half-load setting</i>	60				
<i>Using a water efficient model</i>	55				
Dishwasher	35	x		=	
<i>If you use the half-load setting</i>	20				
<i>Using a water efficient model</i>	22				
Washing dishes by hand	6	x		=	
Cooking and drinking (per person per day)	10	x		=	
<b>GARDEN</b>					
Watering can	10	x		=	
Hosepipe/sprinkler	650 per hour	x		=	
<b>TOTAL FOR THE DAY</b>				=	(A)
<b>Total water usage per person per day</b>		(A) ÷ Number of occupants in the house	=		

If your water usage per person per day is above 150 litres then you are using above the national average and can save water quickly and easily by implementing the following water saving measures in your home. Remember, saving water will not only reduce your water utility bills but because you are using less water that means less water to heat **saving on your gas and electricity bills as well.**

# SAVING WATER IN THE KITCHEN

Kitchen tap and dishwasher can account for up to 14% of the water used in the home and you can make significant water savings in this area by small changes to your routine and the way you use water.

## Fit Water Saving Tap Aerator to your kitchen tap

See products 1, 2 and 3

**Use a washing-up bowl when washing up will save at least 30% of water used**

## Upgrade your plumbing

Things you can do:

- fix drips – a dripping tap or overflow can waste a lot of water (just 2 drips a second adds up to about 26 litres of water a day), but a new washer costs just a few pence and can be fitted in minutes
- putting lagging on your outside pipes will help to avoid burst pipes and leaks in winter

**Rinse vegetables in a bowl and use remaining water on plants in the garden**

**Try to avoid rinsing dishes in the sink before loading them into your dishwasher**

**Store drinking water in the refrigerator rather than letting the tap run every time you want a cool glass of water**

**Wait until you have a full load before doing your washing**

Whether it's a load of washing in the washing machine or dishes in the dishwasher, only switch on if you've got a full load to wash. That way, you'll be making optimum use of the water that's used in a cycle, and avoid using these appliances needlessly. It's also possible on most modern machines to select a half load option which will reduce the amount of water used accordingly.

**Fill the kettle with only as much water as you need**

You will save electricity as well as water.

# SAVING WATER IN THE BATHROOM

All furnishings within the bathroom use water – that's why they used to be referred to as a water closet! Therefore, huge water savings could be made just in this one area of your home.

## Switch to showers

A five-minute shower can use about a third as much water as a bath. But power showers can use more water than a bath in less than five minutes.

- fitting a water-efficient shower head can reduce the amount of water you use by a further 30 per cent (these should not be fitted to electric showers as this can lead to overheating of the water)
- avoid power showers – you'll probably end up using more water than if you had a bath
  - A standard shower uses 35 litres every 5 minutes
  - An average depth bath uses 80 litres
  - A 'Power Shower' uses 80 litres

See products 7, 8, 9, 10, 11, 12 and 13

**Fit a water efficient shower head or shower mixer saving at least 50% of water used and the energy to heat it**

See products 7, 8, 9, 10, 11, 12 and 13

## Install displacement device in toilet cistern

Fitting a water displacement device in the average cistern will save up to 3 litres of water with every flush. If one toilet is flushed ten times a day, this would save 30 litres per day.

See products 4 and 5

**Always make sure you turn off taps fully**  
**Don't leave the tap running while brushing your teeth**

It's an old cliché, but turning the tap off when brushing your teeth saves more water than you may realise – over six litres every minute. If the entire adult population of England and Wales remembered to do this, we could save 180 mega litres a day, enough to supply nearly 500,000 homes. Also try and make a conscious attempt to turn off the tap when shaving and washing your face in the basin.



## Hand wash small amounts of clothes in a bowl

### Use water-efficient appliances

The amount of water consumed by dishwashers and washing machines varies considerably.

All new dishwashers and washing machines have a European (EU) energy label which will tell you how much water they use per wash, as well as how energy efficient they are. Things to consider:

- if you have a choice when choosing a washing machine, a good guide is to look for a machine that uses less than 50 litres per wash
- try looking for a dishwasher that uses less than 15 litres per wash



## Installing a low-flush or dual-flush toilet

Toilet flushing accounts for about a third of household water usage: you probably flush away as much water in a day as you drink in a whole month. When buying a new toilet get a water-saving low-flush or dual flush toilet – the more efficient flush settings on these use around a third less water

### Avoid flushing the toilet unnecessarily

Dispose of tissues, insects and other such waste in the bin rather than the toilet. Currently the average person in the UK flushes the toilet 35 times a week, but not always for the right reasons.

## Fit tap water saving aerators to basin taps saving at least 50% of water used

See products 1, 2 and 6

# Challis Water Saving Products



1

**Challis 0024/9 Water Saving Kitchen Tap Aerator** with swivel to direct flow. 9 litres per Minute, M24 Male thread. Easy fit screw in suitable for tap spouts with internal thread.



2

**Challis 005/6 Water Saving Tap Aerator** 6 litres per minute, M22 Male thread. Easy fit screw in suitable for tap spouts with internal thread.



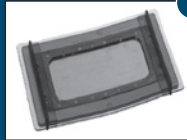
3

**Challis 9110E Water Saving monobloc Kitchen tap** with manual temperature control. 9 litres per Minute. Complete with soft close water hammer arrestor, adjustable water flow and temperature limiter.



4

**Challis Toilet Tummy** cistern displacement device. Just fill with water and hang on inside of toilet cistern. Displaces and saves 2.4 litres water per flush.



5

### Challis 51 Cistern water dam

Acts as a dam in the cistern to hold back water from flush, can be adjusted to provide infinite variable levels of water saving per flush.



6

### Challis 9050-0000 E-designation water saving monobloc basin tap

Complete with soft close water hammer arrestor, adjustable water flow and temperature limiter.



7

### Challis 315 Water saving hand shower

(Chrome) Flow 9 litres per minute. Fits on to standard 1/2" hose. Excellent water saving without sacrificing performance.



8

### Challis 311 Water saving hand shower

(White) Flow 9 litres per minute. Fits on to standard 1/2" hose. Excellent water saving without sacrificing performance.

# SAVING WATER IN THE GARDEN

Garden water use is estimated at less than 3% of the annual water consumption of an average household. At peak times in dry summers, however, as much as 70% of water supplied is used in gardens.

## **Don't use a garden sprinkler to water your garden**

Use a watering can or handheld hosepipe instead.

## **Use a watering can instead of a hosepipe when watering your plants and only water around the base of plants**

Hosepipes use around 1,000 litres of water an hour; sprinklers even more. Leave them in the shed in favour of more water efficient alternatives. Use leftover water and rainwater from your water butt for the garden. Washing the car the old fashioned way – with bucket and sponge – is equally as effective but miles more efficient.

## **If you do need to use a hosepipe, fit a hose trigger so you can switch the hose off when you don't need it**

## **Try to water your garden in the evening when less evaporation will occur**

## **Use a water butt to collect the rainwater from your roof rather than wasting treated drinking water on your garden**

Gathering rain water outside using a water butt is an efficient and cheap way to water flowers and plants. It can keep your garden in top condition without using a sprinkler or hosepipe. Water butts, which are lightweight and barrel sized, are usually available at a discounted price from your council.

## **Playing with a garden hose can be fun when it's hot, but a water pistol will use a lot less water**

## **Use a bucket and sponge to clean your car instead of a hosepipe**

## **Don't waste water by using a hosepipe to clean your paths, patios and driveways**

Use a broom, rake or outdoor blower/vacuum cleaner instead.

## **Garden plants**

Dig a little hole around trees and shrubs to collect water.

Line the sides of terracotta pots and hanging baskets with polythene to prevent evaporation.

Add water retention crystals to pots, tubs and hanging baskets to help keep the compost moist.

Use mulch around plants to reduce evaporation.

Don't cut lawns too short and save the clippings to use as mulch.

## **Think about buying drought tolerant plants**

### **Plants which use less water:**

Succulents such as Sedums, Lavender, Catmint, Ivy, Periwinkles, Iris, Oriental Poppies, Geraniums, herbs and grey leafed plants.

### **Plants which use a lot of water:**

Astilbe, Azalea, Hostas, Primula, Marsh Marigold, Dogwood, Willow, Elder, Bamboo, Viburnums, Clematis and some Acers.

## **Vegetables**

Leafy crops, together with cauliflower, broccoli, salad onions, potatoes, runner beans and tomatoes need the most water. Asparagus, beetroot and other root crops are more drought tolerant.







## ABOUT CHALLIS PRODUCTS

Our water saving products conform to the highest standards and are designed for use in a wide range of applications, particularly private sports centres, hotels and other applications that require functionality combined with good looks.

### Main features and benefits

Antibacterial Capability (selected units)

Reduction of water utility bills by 50%

Reduction of energy utility bills by 50%

Quick and easy to fit

Low maintenance design

Limescale Prevention



## Challis Water Saving Products



9

**Challis 411 Water saving hand shower (White)** Flow 9 litres per minute. Fits on to standard 1/2" hose. Excellent water saving without sacrificing performance.



10

**Challis 412 Water saving hand shower (Chrome)** Flow 9 litres per minute. Fits on to standard 1/2" hose. Excellent water saving without sacrificing performance.



11

**Challis Ag+ Anti Bacterial Water saving hand shower (Chrome)** Flow 9 litres per minute. Fits on to standard 1/2" hose. Excellent water saving without sacrificing performance. Anti bacterial action against legionella, MRSA and other bacteria/ virus and mould.



12

**Challis 260 Water saving shower (Chrome)** Flow 9 litres per minute. Fits on to standard 1/2" BSP fixed shower arm. Excellent water saving without sacrificing performance.



13

**Challis 9399 Water saving Drench shower head (Chrome)** Flow 9 litres per minute. Fits on to standard 1/2" BSP fixed shower arm. Excellent water saving without sacrificing performance.



14

**Challis 38 Electronic Limescale Preventer and Water Conditioner.** Simple, easy and quick to fit. Removes limescale from complete water system and prevents any subsequent buildup. Big Savings £££££ off energy bills.



15

**Challis Shower Hose (Silver)** Standard 1/2" Conical fittings at each end. Suitable for all Challis hand held showers. Easy clean, long life surface. Length 1500mm, Ø180mm.



16

**Challis 4290-0050** (for walls 400 mm). Anti Freeze Garden Tap (Cold Supply). Easy to fit and prevent tap from freezing.

