



# Energy Efficient Homes

## Net Zero Carbon Toolkit Information Sheets

### Sheet no 10: Water efficiency

#### Increasing demand

“An increasing population means extra demand for water while climate change with wetter winters and dryer summers simultaneously puts a strain on water resources. It is more important than ever for everyone to take care how they use water.” (Water U.K.)

If we continue present levels of water usage, by 2050 there could be a shortfall of 10-15% and water restrictions will become an annual occurrence.

The average person in the U.K. uses up to 140 litres of water a day, much of which does not need to be of drinking quality. The average proportions of usage are:

- Toilet flushing 33%
- Personal water, baths and taps 24%
- Clothes washing 13%
- Showers 12%
- Washing up 7%
- Drinking 4%
- Other 7%

The water industry is aiming for a 60% reduction per household.

The following website explains the official method of calculating water efficiency in new buildings:

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/529172/The\\_Water\\_Efficiency\\_Calculator\\_for\\_new\\_dwellings\\_archived.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/529172/The_Water_Efficiency_Calculator_for_new_dwellings_archived.pdf)

For water saving tips, see:

<https://strettonclimatecare.org.uk/wp-content/uploads/2022/10/No.-16-Water-saving-tips-Oct-2020.pdf>

#### Principal ways of reducing consumption:

Retrofitting is the ideal time to introduce water efficiency measures

#### Minimise leakage

A dripping tap can lose up to one litre of water per hour = 5,500 litres per year.





### **Install low flow taps and shower heads**

Low flow taps typically work by mixing air into the water that is flowing out of the tap. This gives one the illusion of having more flow while saving you on actual water consumption. Normal taps account for 15 to 18 litres per minute, while a low-flow model can use as little as 2 litres per minute. A low flow shower head uses approx. 4 litres per minute.

### **Insulate hot water pipes to reduce cold run off**

Take the opportunity to insulate ALL hot water pipework. Once the initial cold run off from the hot tap is achieved, the pipe will then retain heat for longer, reducing the amount of the next cold run off.

### **Use dual flush toilet cisterns**

A dual flush cistern will reduce water consumption by approx. 50%

### **Maximise rainwater and grey water usage**

If there is an opportunity, consider underground rainwater storage. The average U.K. house roof can collect approx. 14,000 litres of rain a year. Any extension building work would be a good time to dig the necessary hole. Pumped and filtered rainwater can be used for washing machines.

Alternatively and much cheaper, install water butts on down pipes wherever possible. This unfiltered water can be used in the garden, for toilet flushing (transferred by bucket) car washing etc. Collected shower and wash basin water is also suitable for toilet flushing.

### **Install a water meter**

The installation of a water meter will allow easy monitoring of water consumption. Kitchen refitting may provide an opportunity for installation in an easily assessable place adjacent to the inside stop cock.

### **Use dishwashers & washing machines efficiently**

When refitting kitchens consider the energy efficiency and water consumption of any new washing machine / dishwasher.

## **Other sheets available in this series**

1. Fabric First: Planning changes to your home?
2. Preparing for Retrofit: Resources on your doorstep
3. The Energy Pyramid: The Principle behind the Whole Building Plan
4. Opportunities to Begin the Journey
5. First Retrofit Priorities
6. Insulation: Roof & Attic
7. Insulation: Walls
8. Insulation: Windows & Ventilation
9. Insulation: Floors
- 10. Water Efficiency**
11. Heating systems
12. Lighting
13. Renewables
14. Costs & Grants

### **Have a shower instead of a bath**

If refitting a bathroom, consider replacing the bath with a shower. The average bath holds 180 litres. A 10 minute shower uses as little as 40 litres.

<https://www.ccw.org.uk/advice-and-support/households>

<https://energysavingtrust.org.uk/advice/saving-water-at-home>