

## how do we **make your water safe?**

The way that we treat your water depends on where it has come from. **Surface and ground water does contain some naturally occurring substances. Each water source will have unique characteristics and requires a tailored treatment process to ensure that it is safe for you to drink.**

### a typical treatment process

- **screening**

Once the water has been piped to our treatment works it is then passed through mesh screens to remove any leaves and debris.

- **aeration**

Odours and some dissolved gases are eliminated and metal salts are oxidised to allow them to filter more easily.

- **clarification**

Just prior to clarification a chemical coagulant is added. This reacts with the water to form loosely connected 'super particles' called a floc, which settles and carries any suspended particles with it. The floc also traps bacteria and absorbs colour, and as it settles it forms a sludge which is removed for disposal leaving behind a clarified water.

- **filtration**

The clarified water is then filtered to remove any remaining particles before disinfectant is added.

- **disinfection**

A disinfectant, usually chlorine, is then added, as this is the most effective and reliable way of ensuring that your water is safe to drink. In carefully controlled doses chlorine is deadly to bacteria but is harmless to humans. It has been used in water supplies since 1897.

- **pH adjustment**

pH is a scientific term used to describe the acidity or alkalinity of a substance. We have to control the level in your water supply to make sure that it does not corrode the metal pipes in the distribution system by being too acidic, or leave deposits on the pipes by being too alkaline.

**Your water is now clear, safe and ready to drink. The water is then pumped into our vast network of pipes ready to flow down our water mains to your taps.**

You can write to us at:

**Scottish Water**

PO Box 8855  
Edinburgh, EH10 6YQ

Alternative formats of this leaflet can be made available free of charge. Textphone users please call **0845 603 8855**. For information on Braille, large print, audio tapes and a variety of languages, please call **0845 606 8855**.

We record all calls for quality and training purposes.



your water explained

For more information on Scottish Water, call our Customer Helpline on **0845 601 8855** or visit our website at

[www.scottishwater.co.uk](http://www.scottishwater.co.uk)

SCOTTISH  
WATER 

## where does your water come from?

Essentially all of your water comes from rain. When it rains two things can happen:

- The water can flow into streams, rivers, lochs and reservoirs, and this type of water is known as surface water.
- Alternatively, the water can seep through the ground until it reaches rocks which it cannot pass through. It then forms water pools and this is known as ground water. It is often very pure as many of the pollutants are naturally filtered out through the seeping process.

Some Scottish Water customers are supplied with water from ground water sources, however most of our customers receive their water from surface water sources.

## why does water need to be treated?

We can't live without water and we depend upon it for nearly everything that we do. If water carries a disease-producing bacteria, this could seriously damage your health. As a result, the main aim of our treatment process is to remove any harmful bacteria and ensure your water is safe for you to use and drink.



## water quality and the law

There are very strict laws governing drinking water in the UK. The water that we supply to you must meet high standards set by the Government and the European Union. As a result we regularly test your water quality at your taps, our reservoirs and treatment works. Over 99% of the samples taken pass all our tests.



## what's in your water?

Depending on the natural environment found near the water supply source, your water may contain traces of some of the substances listed below.

### • aluminium

Some aluminium does occur naturally in water, however in some areas aluminium may be present in minute quantities where it has been used as part of a treatment process to clarify and cleanse the water. The regulation level is set at 200 micrograms per litre.

### • fluoride

Some fluoride does occur naturally in water, the regulation level is set at 1500 micrograms per litre. We do not add any additional fluoride to your water.

### • iron and manganese

Upland surface water can be naturally acidic and can dissolve to form compounds of iron and manganese from the soil and minerals. Levels of naturally occurring iron and manganese can vary from season to season and according to rainfall. The regulation level is set at 200 micrograms per litre for iron and 50 micrograms per litre for manganese. There are no health risks from either of these substances, the regulatory levels are set to avoid colouring, tastes and staining.

### • lead

In Scotland lead does not occur naturally in significant concentrations in the water supply, and is only a problem when the water comes into contact with lead pipes, joints and cisterns. The regulation level is set at 25 micrograms per litre (reducing to 10 micrograms in 2013).

## investing in our future

One of our biggest challenges is to improve our services to meet your needs as well as meeting our statutory legal requirements. Our capital investment programme, **Clear – Investing in Quality**, will help secure your future services. Through this programme we

will work to deliver clear benefits including, environmental improvements, reduced supply interruptions and better quality drinking water. For up to date information on **Clear – Investing in Quality** visit [www.scottishwater.co.uk](http://www.scottishwater.co.uk)

## use water wisely

Water is something we often take for granted. It is a vital commodity in every Scottish household, for drinking, washing and cleaning. Each person uses approximately 143 litres a day.

We encourage you to use water wisely. This doesn't need a major lifestyle change. After all, it's not about the water we use; it's about the water we waste.

You can take a few simple and effective steps to help reduce the amount of water you use. These include:

- Take a shower instead of a bath – a bath can use as much as 100 litres of water, this is 3 times more than a shower uses. Watch out though - using a power shower for more than 5 minutes can use as much water as a bath!
- Only fill your kettle for the number of cups you need. This will save water and mean your kettle will take less time to boil - so it reduces the amount of energy you use.
- Use a bucket of water to wash a car instead of a hosepipe. A hosepipe can use as much water in 30 minutes as a family of 4 can use in a day.

