

your water explained

We use water every day, to live and work; at home; in the office; in factories and industry in every part of the country. It's vital your water is clean and safe. It is also important as a customer that you understand the role of Scottish Water in providing various services across Scotland. We have therefore produced a number of factsheets on various aspects of water quality to keep you informed.

This factsheet provides you with information on:

- where your water comes from
- sources of water
- how we get water to your home
- how and why we monitor the quality of your water
- the water industry in Scotland
- how we are investing in a cleaner future
- how you can use your water wisely
- how to contact us

where your water comes from

Water covers $\frac{3}{4}$ of the earth's surface. 97% of this is salt water and 2% is frozen. That leaves just 1% as fresh water, which everyone on the planet has to share. With such a small percentage, why do we rarely run out of the fresh water that we need to live on? The answer lies in the water cycle – nature's way of recycling this scarce resource.

The diagram below shows how the water cycle works.

1. Water evaporates from seas (leaving the salt behind).
2. Fresh water evaporates from rivers.
3. Trees breathe out water vapour through their leaves (known as transpiration).
4. All this water vapour rises into the sky.
5. As the vapour rises it gets cooler and condenses to form clouds.
6. The tiny water droplets that form the clouds group together into bigger droplets.
7. Eventually these big water droplets are too heavy and fall back to the earth as rain, snow or hail.
8. Some of this water feeds plants, trees and animals. The rest soaks into the ground and flows into rivers.
9. Eventually, rivers take water back out into the sea, where the whole cycle begins all over again.



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sources of water

Essentially all of the water you use comes from rain. We treat three types of source water: ground water, upland catchment water and lowland river water. The way that we treat your water depends on where it has come from, because the level of treatment necessary to meet the required standards of safety and quality depends on the source water quality. Generally, the poorer the quality of the source water, the complexity and cost of treating the water increases. You can be assured that whatever quality the source water is, all public mains drinking water in Scotland is disinfected.

At Scottish Water it is our duty to make sure that your water is safe for you to use and drink. Each water source will have unique characteristics and requires tailored treatment processes to ensure that it is safe for you to drink. Some of these processes are briefly explained in Scottish Water **factsheet 3 water treatment explained**.

how we get water to your home

We pipe water from reservoirs to our treatment works across the whole of Scotland. Once treated, the water is then pumped through our vast network of pipes to your home so that you have an uninterrupted supply of clean, safe drinking water. Water is also stored within closed tanks in our network to ensure there is a continuous supply. We aim to ensure your water is supplied at an adequate pressure to allow you to use your showers, washing machines and dishwashers. This should allow you to fill a 10 litre bucket in about a minute.

We care about our customers and work 24 hours a day, 365 days a year, to provide an uninterrupted supply of high quality water to you. In an unforeseen emergency or during planned interruptions, to minimise disruption, we will make every effort to redirect supplies from neighbouring networks to maintain your supply where possible. This forms part of our overall risk management strategy.

how and why we monitor the quality of your water

There are very strict laws governing drinking water in the UK. In fact, drinking water in the UK is subject to some of the tightest regulations in the world. In Scotland, drinking water standards are set down by law in The Water Supply (Water Quality) (Scotland) Regulations 2001, which is in line with all European Community (EC) requirements. It is the Drinking Water Quality Regulator's (DWQR) job to make sure that we meet these standards.

As a result we regularly test our water quality at our:

- [treatment works](#)
- [service reservoirs](#)
- [customers' taps](#)

In addition to this, some water quality parameters are continuously monitored at major treatment works. Across Scotland laboratory quality tests are carried out on water samples each year for regulatory purposes. Many more samples are taken by staff for operational reasons (e.g. bursts, new mains, complaints). There percentage of all regulatory samples complying with the relevant standards in Scotland is over 99%. The small minority that do not meet these standards are usually only a small margin below what is required and action is immediately taken to resolve the problem. For more information, please see Scottish Water **factsheet 2 water quality standards explained**.

the water industry in Scotland

Scottish Water provide the public water and waste water services across the whole of Scotland, and help to ensure that all customers enjoy improved standards and quality of service while offering best value from water and waste water charges.

- [We answer to the Scottish Government through the First Minister.](#)
- [The Water Industry Commission for Scotland \(WICS\) is the economic regulator of the water industry in Scotland. They approve the levels we charge you.](#)

- Waterwatch Scotland, independent of Scottish Water and other agencies, represents the views and interests of Scottish Water's customers. Its Convener also has the legal responsibility for investigating complaints against Scottish Water.
- The Drinking Water Quality Regulator (DWQR) monitors and regulates the quality of the water which we deliver to you.

They ensure that we provide high quality water to our customers across the whole of Scotland under the Water Supply (Water Quality) (Scotland) Regulations 2001 and the Cryptosporidium Directions 2003. The DWQR carries out this function by:

- Maintaining a very close liaison with various parts of the business
- Conducting audits
- Overseeing all PCV* failures and any water quality incidents
- Annual reporting
- Orders investigation where appropriate
- We also regularly interact with other organisations concerning the quality of your water including health boards, environmental health, local councils, Scottish Environmental Protection Agency (SEPA), Health Protection Scotland (HPS), and the Food Standards Agency (FSA).

(* PCV – prescribed concentration or value of a parameter. These are tabulated within the Regulations.)



how we are investing in a cleaner future

One of our biggest challenges is to improve our services to meet the needs of our customers as well as statutory legal requirements. We are improving the quality of drinking water across the whole of Scotland to meet strict standards set out in legislation. Much of our work is governed by European legislation which has been interpreted into Scottish Law.

Scottish Water's capital investment programme will help secure the future of services to our customers. Through this we are working even harder to deliver clear benefits through environmental improvements, reduced supply interruptions and better quality drinking water.

For more information on our capital investment programme visit www.scottishwater.co.uk.

how you can use water wisely

Water is something that we often take for granted. It is a vital commodity in every Scottish household for drinking, washing and cleaning. Each person uses approximately 150 litres a day.

Scottish Water encourages everyone to do their bit for the environment and use water wisely. It doesn't need a major lifestyle change. 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 you use water wisely. These include:

- Take a shower instead of a bath - it uses around a 1/3 of the water and saves time and money. You can try and use a shower timer to try and cut down the time and energy you spend in your shower and watch out for power showers as they use as much water as a bath!
- Wait until you have enough dishes or clothes for a full load before you use your dishwasher or washing machine. If you must do smaller washes use the half load cycle.
- A dripping tap wastes at least 5,500 litres of water a year - in a year that's enough to fill a paddling pool every week for the whole summer*.
- Use a watering can instead of a hose for your plants – it's more accurate, placing the water where it does most good.

* Source: waterwise 2010.

For more information and simple tips on how to use water wisely in and around your home and garden please contact us and ask for a copy of our 'water efficient living' leaflet.

Scottish Water factsheets in this series:

- [Factsheet 1 your water explained](#)
- [Factsheet 2 water quality standards explained](#)
- [Factsheet 3 water treatment explained](#)
- [Factsheet 4 colour, taste and odour explained](#)
- [Factsheet 5 chlorine explained](#)
- [Factsheet 6 chloramination explained](#)
- [Factsheet 7 lead explained](#)
- [Factsheet 8 biofilms and staining explained](#)
- [Factsheet 9 manganese explained](#)
- [Factsheet 10 external flooding](#)
- [Factsheet 11 pressure management](#)

how to contact us

Scottish Water aims to provide all customers with a friendly, reliable and professional service. If you require more information on our services, please contact us:

By phone on our Customer Helpline
0845 601 8855

On the web at www.scottishwater.co.uk

Or in writing at **Scottish Water,**
PO Box 8855, Edinburgh, EH10 6YQ

Alternative formats of this leaflet can be made available free of charge. For information on Braille, large print, audio and a variety of languages, please call our Customer Helpline.

Please quote this reference code when contacting us: **SWFact WE4 04/11**

We record all calls for quality and training purposes.