

Making sure your water is the best it can be

How we keep your water
looking and tasting great



YorkshireWater

Each day in Yorkshire we use 1.3 billion litres of fresh tap water – that’s around 550 Olympic-sized swimming pools.

To make sure we keep supplying you with high-quality drinking water, we carry out regulatory sampling all year round and always look into any customer queries. To do this, we may visit homes and businesses and will always give information and advice when we can.



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For more details on the quality of drinking water, visit yorkshirewater.com

Maintaining safe, great-tasting drinking water

What happens during a water quality inspection?

One of our field technicians will investigate the quality of water in your home. To resolve the problem, we may need to ask you questions, inspect the plumbing inside your home and inspect your stop tap outside. We'll also need to look at the water supplies outside of your property and, if needed, take some samples.

Sometimes, after a field technician has inspected all of these, they may find out that the problem lies with the plumbing inside your home. Unfortunately, if this is the case, we're not responsible for solving the problem and it will be down to you as the homeowner. Don't worry though, we'll advise you as much as we can.

What to expect from our visit

We won't keep you long

Our sampling will only take between 10 and 15 minutes to carry out.



Locate your water

We collect samples from the cold tap in your kitchen. The tap will be run for a short period.



How much water do we use?

The average cost of the water has been measured at less than 4p per sampling visit.



Testing times

Samples are taken to our independent laboratory to be analysed. Test results can take up to 20 working days.



What happens next?

The majority of regulatory samples collected meet quality standards. For any that don't, we'll be in touch to arrange further investigations.



How we carry out our sampling

We collect samples from the cold tap in your kitchen. We'll run the tap for a short amount of time so we can sample fresh water.

Before taking any samples, we need to make sure there's no bacteria in the tap, which could affect the result. To do this, we squirt a diluted bleach solution into the spout of the tap. We then run the tap again before taking more samples. Don't worry, we make sure the water is run thoroughly afterwards to get rid of the solution and make sure the water is as it was before our visit.

Sometimes, the results from samples need further investigation. If this is the case, we'll be in touch.

These results are mostly due to bacteria that suggest the quality of water is not as high as it should be.

They aren't always harmful but finding them in drinking water may be a sign of possible environmental contamination.

Normally there's nothing to worry about and you can carry on using your tap as you usually would. We'll always give you any advice you might need.

What happens next

If you've reported an illness linked to a stomach upset, we'll give you a call the next working day after we've collected the sample. We'll tell you about your initial test results relating to water quality.

For all water quality inspection samples, we'll write to you with the results. Please allow us 15 working days to receive and check the results of the sample test and a further 5 working days for you to receive the letter.

For more details on the quality of drinking water, visit yorkshirewater.com/drinking-water-standards



Top tips for quality water

We want to make sure our water looks and tastes great! After it has left our water pipes there's a few things you can do to help keep it perfect.

Why not try some of these helpful tips?

Only use water fittings that comply with the quality and standards

set out in the Water Fittings Regulations. These will minimise taste, smell and discolouration problems.

Inspect water tanks and other storage cisterns regularly,

checking for adequate covers, vents and ventilation to help prevent tastes, smells and slimes.

Make sure hot water pipes aren't too close to cold water pipes to prevent cold water pipes becoming warm.

This can lead to water developing a cloudy appearance due to the presence of air bubbles.

Always use an approved plumber with a good reputation.

To find an approved plumber, visit: watersafe.org.uk



Briefly run off any water that has stood in your pipes overnight

before the water is drunk (very important if your pipes are lead). Why not save this water for house plants or your garden?

Keep kitchens and bathrooms well ventilated

to prevent the build-up of moulds and stains on tiles and other surfaces that are often in contact with water.

The taste and smell of your drinking water

We do all we can to make sure your drinking water is not only safe to drink but tastes good too. The taste and smell of water can vary depending on where it comes from. For example, water that comes from rivers will taste different to water that comes from boreholes (wells).

These differences are due to varying levels of dissolved minerals (such as calcium and magnesium) and gases (oxygen and carbon dioxide) and give the water a specific taste, smell and 'feel in the mouth'. Sometimes some of our customers notice a change in the taste or smell of their drinking water.

Chlorine tastes and smells

Why do we use chlorine?

By law we must disinfect all public water supplies. Most of the time we use chlorine based chemicals to make sure water is safe to drink and contains no organisms which could cause illness. We only add enough chlorine to disinfect, whilst minimising the taste and smell as far as possible.

How is it added?

Chlorine is continuously added at all of our treatment works, which are monitored 24 hours a day by our central control room.

Why is chlorine more noticeable at certain times of the day?

The level of chlorine in water supplies can vary slightly depending on the distance the water has to travel through our pipes. Customers who live closer to the treatment works may notice higher levels of chlorine. At times of high demand, such as first thing in the morning and late afternoon, more people use water meaning the water travels to you more quickly and may contain more chlorine. With time, the concentration of chlorine in the water pipes reduces.

What can you do to reduce the taste?

We can't promise that your water will never taste or smell of chlorine and we know some customers are more sensitive to its taste. Here's what you could try to improve the taste:



fill a glass jug or bottle with tap water;



cover the jug;



leave the jug in the fridge for an hour or so to chill it; and



use the chilled water within 24 hours.

Chemical-like tastes and smells

What are they?

Sometimes customers notice a distinctive taste (described as 'medicinal', 'disinfectant', 'swimming pool' or 'TCP-like') to their drinking water that's often most noticeable in boiled drinks such as tea and coffee. Chlorine is removed by boiling so these tastes are not directly due to chlorine.

Where does the taste come from?

Our experience and independent research has shown this taste is likely to be caused by rubber and plastic materials used in domestic appliances and fittings. These plastic fittings include kettle gaskets and seals, tap washers and hoses fitted to the inlet of washing machines and dishwashers. The taste doesn't come from the water pipes but is formed within properties.

These plastic and rubber materials contain 'phenols' and related substances which can cause unpleasant tastes or smells. And, low levels of chlorine may react with these chemicals to produce other taste-causing substances. Although these substances can cause unpleasant tastes in hot drinks at very low levels (parts per trillion in some cases), they are not harmful to health at the levels normally detected.

What can you do to find the cause?

Kettles – if you only notice the taste in hot drinks, try boiling water in a clean saucepan. If the taste is no longer there, the likely cause is the kettle gasket that seals the elements to the side of the kettle. This is often most noticeable with new kettles.

The problem may well go away with time if the kettle is new. Boiling fresh water each time may also help to keep the taste to a minimum. Before boiling your water, try taking the steps we describe in the 'What can you do to reduce the taste' on page 9. This will help reduce the likelihood of a reaction taking place. If the problem continues, contact the manufacturer for their advice.

Washing machines and dishwashers – 'Chlorine-like' tastes can sometimes relate to the hose which transfers water from your supply pipe to dishwashers and washing machines. Increases in water pressure can result in the flexi-hose expanding like a balloon. When the pressure is released by opening a tap in your home, the hose collapses and can squirt water back into your supply pipe. This water can then mix with your incoming water.

To stop this, try shutting off the flexi-hose by turning off the valve that supplies your cold water to the appliance when you're not using it. This advice is also given by many manufacturers.

If the location of the valve makes it difficult to get to or operate easily, you might want to consider asking a plumber to do one or more of the following:

- **Move the valve to a more accessible place so that it's easier to use.**
- **Move the valve to a position after the draw-off point of the kitchen tap.**
- **Fit a non-return valve (also known as a check-valve) at the start of the hose.**

We'll send you a check-valve free of charge for you to fit at the connection of the hose and your mains water supply. The check-valve prevents any water that's been in contact with the flexible hose from coming back in to your water supply (in other words, it lets water into the machine but not out). In our experience check-valves deal with many of these type of taste complaints.

Tap washers – sometimes, the washer inside kitchen taps and stop-taps may be the cause of an unusual taste in your drinking water. This is more likely if it doesn't meet British or equivalent European standards, so always make sure any fittings comply with the quality and standards set out in the Water Fittings Regulations.

If there is a second mains-fed tap in your home try using water from this. If you do not notice a taste, then the cause is probably the tap washer in the original tap. If no other suitable tap is available, run the tap for a short time before tasting the water. It's worth checking that stop taps inside your home are also fitted with compliant washers.

Other hoses and fittings – many modern kitchen tap fittings use flexible or braided hoses and other rubber-like materials. Some of these fittings can create taste problems. The best way to remove these is to make sure all your fittings comply with the quality and standards set out in the Water Fittings Regulations.

Just so you know, although it is against the Water Fittings Regulations to install any non-compliant product to your drinking water pipe, it is not illegal to sell them and many unapproved plumbing products are freely available.

Why does the taste come and go?

Taste issues can come and go due to one or a combination of the following factors:

- **Changes in pressure** – the pressure of your water supply is slightly higher at night and when fewer people are using water. This increased pressure can cause a slight expansion in rubber hoses (like a long thin balloon) attached to washing machines and dishwashers. When a tap in your property is used, the pressure reduces and the expanded rubber pipe collapses and squirts water back into the incoming supply.
- **Standing water** – water left in your pipes overnight or when your property is empty is more likely to pick up any taste-causing substances from unapproved materials. Running your tap for a few minutes before using the water will solve this.
- **Washer deterioration** – Certain types of washers degrade with time. Because the 'break-up' of these washers isn't a continuous process, the taste may come and go.

Earthy and musty tastes and smells

These kinds of taste or smells can be due to the growth of harmless micro-organisms such as bacteria and fungi in domestic pipework, particularly sections that can have a low usage or can get warm (when hot pipes come into contact with cold pipes). Valves and fittings containing rubber materials are also particularly prone to these growths.

If this happens, you can fix the problem by making sure the hot and cold pipes don't touch. For sections of pipes that aren't used as often, you should run the water to bring fresh water in. All materials used for plumbing should be compliant with the quality and standards set out in the Water Fittings Regulations.

Sometimes, earthy or musty taste and smells are caused by very low amounts of naturally occurring substances released by algae growing in raw water reservoirs. These substances are not normally thought to be dangerous to health at the concentrations at which they are found.

We make sure that our water treatment works reduce these substances as far as possible and we carry out daily checks on the smell of the raw and treated water.

Petrol and diesel tastes and smells

These one-off smells can be caused by a spillage of fuel near a plastic supply pipe. These substances can, over time, pass through the plastic pipes and result in changes to taste or smell.

We'll always investigate these reports quickly to find the exact cause and offer advice on how to deal with the problem.

If you notice a petrol or diesel taste or smell to your water, please get in touch with us using the contact details on the back of this leaflet.

Bitter tastes and smells

A metallic or bitter taste can often be due to water standing in a metal pipe (for example a copper pipe) for several hours or more.

Try dealing with these types of taste or smells by flushing the tap for several minutes to bring fresh water into the property. If this doesn't help, please call us so we can investigate.

For more details on the quality of drinking water, visit yorkshirewater.com

The Appearance of Your Drinking Water

Discoloured water

Discolouration can range from a light, straw-yellow colour to dark brown. It can be caused by a number of things including:

- **disturbance of mains deposits.**
- **corrosion of service pipes.**
- **internal plumbing issues.**

Discolouration is normally short lived and is most often caused by changes in flow or pressure which can disturb iron and manganese sediments within the water mains. This could happen when there's a burst or through an increase in demand; for example when the fire service connect to the mains network.

In our experience, discoloured water of this sort is unlikely to cause any health issues.

If you experience short term discoloured water and you need water for drinking or cooking, please follow this advice:

- **Run the first incoming cold water tap for several minutes (this will usually be your kitchen tap).**
- **Fill a jug and leave it to stand until any sediment has settled to the bottom.**
- **Pour the cleanwater from the top of the jug for you to use.**

If at all possible, while your tap water is discoloured, don't run the hot tap or use dishwashers, washing machines or any appliances fed by your hot water supply, as it can cause issues with their operation.

If running the tap does not clear the discolouration, please check with your neighbours to determine if their water is also discoloured.

If your neighbours do not have discoloured water, then the cause is almost certainly due to pipework between the main in the road and the kitchen tap.

Discolouration of water can take many forms depending on why it happens;



Bits in your water supply

can often be associated with the corrosion of unlined Iron mains or a deterioration of your supply pipe. If for instance your neighbours do not have discoloured water, it may be worthwhile checking whether you have any lead pipes in your home.

If your home was built before 1970 it may have lead pipes – after that time it is unlikely because there was a change in building regulations.

If you're unsure, you can make a simple check by following the advice; look in and behind your kitchen cupboards and find the pipe leading to the kitchen tap. Lead pipes are dull grey in appearance. They are also soft and if you gently scrape the surface of the pipe, you'll see the shiny, silver-coloured metal beneath.



Tea coloured water

can be caused by naturally occurring iron deposits. It can also be associated with the corrosion of unlined Iron mains or a deterioration of your supply pipe. Discolouration is normally short lived and can often be cleared by allowing the first incoming cold water tap to run for a few minutes.



Dark brown or black coloured water

is usually caused by naturally occurring iron and manganese deposits which settle in the water mains over time. Normally these deposits don't affect anyone, but can sometimes be disturbed and re-suspended into the water resulting in discolouration.



If your water is blue, please contact us immediately for some help and advice.

A blue colour in drinking water is very rare but when it happens it is usually due to one of two reasons;

Firstly, it may be due to corrosion of copper plumbing. The blue colour indicates that there are elevated levels of copper in the water. The problem only occurs where there is relatively new copper plumbing.

Another risk factor is when water is left to stagnate in the newly installed pipes following pressure testing and before occupation of a property.

Most recorded cases relate to large public buildings or new housing estates. Blue water is less likely to occur when work is undertaken by qualified plumbers and water company-approved contractors who will use only compliant materials and procedures. The blue colour will disappear when the tap is run.

If the colour persists though, you should contact us to arrange for an inspection of your plumbing. We can test your water and provide advice on how to improve your water quality.

The second reason for having blue water relates to the issue that some customers choose to install blue-coloured (and very occasionally other colours) disinfectant in toilet cisterns. On rare occasions, blue-coloured tap water can also be due to such water from poorly installed toilet cisterns siphoning back into the internal plumbing.

Contact us via a free call back at our website, [yorkshirewater.com](https://www.yorkshirewater.com) to arrange for an inspection of your plumbing. If you've noticed blue water after having plumbing work done or if you've moved into a refurbished property, please contact a plumber. To get information on how to get an approved plumber please visit [yorkshirewater.com/plumbing-advice](https://www.yorkshirewater.com/plumbing-advice)



Cloudy or Milky Water

Water can appear cloudy or milky if air mixes with the supply. Under mains

pressure, air can become entrained or trapped causing water to have a milky, cloudy or white appearance. This often happens following water mains repairs.

To check if cloudy water is caused by air, fill a glass with water and leave to stand for a few minutes. The tiny air bubbles will rise to the surface and the cloudy appearance will soon clear from the bottom upwards.

If air is coming from the mains, the only way to clear it is to let it work its way through the system. You can run your taps to help flush the cloudy water through. If it has been cloudy for longer than 24 hours, we may need to flush the mains water pipes to help it along its way.

Sometimes, it's the internal plumbing that causes cloudy or milky water, where cold water pipework in your home touches unlagged hot water pipes.

This can lead to localised warming and cloudiness in the cold water supply. Running the tap will draw the warmed water through, bringing in colder water that has come straight from the main pipe outside.

Occasionally, you may also notice knocking or banging noises coming from the internal plumbing. This is usually because of a burst mains pipe or faulty plumbing fitting. To help fix the problem, try running the cold water tap at the first point of entry into the property (closest to the internal stop tap) on a slow steady flow. While the tap is running, turn the internal stop tap on/off several times to help release the air from the pipes. If running the tap does not clear the water, and your neighbours are not affected, it may still be a problem with your plumbing. It may need to be looked at by a qualified plumber. For information about approved plumbers please visit our website, or search 'WaterSafe' online.

For more details on the quality of drinking water, visit yorkshirewater.com

What are we doing to improve the quality of drinking water?

We have over 31,000 km of mains in the ground and supplies water to almost five million people in the Yorkshire region. We work hard to prioritise any repairs or flushing that may be needed.

In areas where there is localised historic discolouration, we operate a programme to flush clean the water mains. Flushing is a proactive and controlled way of removing the sediment which causes discoloured water and therefore reducing the likelihood of it occurring in the future.

We'll always let you know when this activity is being carried out in your area.

The quality of water leaving the water treatment works continues to improve with more effective removal of naturally occurring iron and manganese from the water. We'll continue to replace cast iron mains and clean many of our large diameter trunk mains where mains deposits are known to be an issue.

To learn more about how we keep your water clean and why it's so important to drink plenty of it, visit yorkshirewater.com/waterquality



Slimes and moulds

(also known as biofilms)

What are biofilms?

The appearance of slime in and around taps, or the staining of tiles and surfaces in kitchens and bathrooms is often due to the growth of microscopic organisms such as bacteria and fungi. Collectively, these growths are called biofilms.

Bacteria and fungi are naturally present in air, food and water and can attach themselves to damp surfaces, where they can multiply to produce a visible jelly-like growth, slime or stain in various colours (black, grey or pink). Although not nice to look at, biofilms are considered to be a nuisance rather than a risk to health. It's not possible to completely and permanently remove biofilms. However, it's possible to stop them growing.

For more details on the quality of drinking water, visit yorkshirewater.com

Where do biofilms grow?

Biofilms can grow on any surface that regularly comes into contact with water. They're often found in the following areas around the home.

- **On the inside of taps** (especially where the tap has a mesh-style-like insert to prevent splashing).
- **In and around washing machine** powder drawers and door seals.
- **Around the base of taps** and tap fittings.
- **In drains and plugholes.**
- **In shower heads** and on shower curtains and doors.
- **In and around toilet cisterns.**
- **On tiles** around the bathroom area and kitchen sink area.
- **In header tanks** (for example, in the loft or airing cupboard).

What can be done to reduce biofilms?

The bacteria and fungi that live in biofilms need water and nutrients to survive and grow. The best way to prevent growth is to improve ventilation so kitchen and bathrooms can dry quickly. It's also important to reduce the food sources available to biofilms. These may include shampoos, soaps and general kitchen food. Keeping the areas clean and free from potential food sources will restrict growth.

Certain plumbing materials can also promote the growth of biofilms, for example rubber washers in taps and some flexible hoses connected to washing machines and dishwashers. If you think these are the cause of biofilms, replace them with an approved product. You should get advice from a qualified plumbers' merchant.

If any taps, where biofilm has been noticed, are fed from a header tank, it's worth investigating to check that the tank is clean and correctly sealed.

Biofilms attach and grow quicker on rough surfaces such as limescale. You can remove limescale using a brush and a variety of cleaning products.

Using water filters and softeners can also encourage biofilm to grow, especially if they aren't maintained and serviced according to the manufacturers' instructions.

How can biofilms be removed?

You can remove the black slime associated with tap fittings by cleaning (both inside and outside) with a small brush (such as an old toothbrush) dipped in a mild solution of bleach. Flush the tap after cleaning to remove any bleach.

You can wipe kitchen surfaces and tiles with a household cleaner or mild bleach solution that will kill the bacteria and fungi. It's our experience that using a sponge rather than a scouring pad gives best results. Always remember to check that the cleaning solution you use is suitable for the surface you will be using it on.

Plumbing advice

We protect and check the water we provide at every stage, from source to tap, so that you can have confidence in the quality of the drinking water you receive.

When the water leaves our pipes and enters private premises, protecting its quality and preventing it being wasted becomes the responsibility of the owners and occupiers.

The Water Supply (Water Fittings) Regulations 1999 play an important role in protecting public health, safeguarding water supplies and promoting the efficient use of water within customers' premises across the UK. Go to [yorkshirewater.com/business/water-regulations-for-more-information](https://www.yorkshirewater.com/business/water-regulations-for-more-information)

Hardness, scum or scaling

Water hardness is the measure of the concentration of calcium and magnesium salts in your water – two of the essential minerals that your body needs.

Why isn't all water the same?

Water hardness can differ across our region as it depends on the soil and rocks from where your water is taken. For example, water that has been held in chalk or limestone (known as an 'aquifer') will tend to be harder (mainly in the east of the region). On the other hand, water from moorlands tends to be softer (mainly in the west of the region).

Our Yorkshire Grid system means that we can transport water around the region to meet supply and demand. This can mean that your water hardness is not always the same as the source may vary.

What is the scale in my kettle?

Hardness due to calcium bicarbonate is destroyed by boiling and so is sometimes referred to as 'temporary hardness'. Boiling changes it to insoluble carbonate, which is seen as a scale in kettles or a slight film on hot drinks. There's no need to worry though as it's completely harmless.

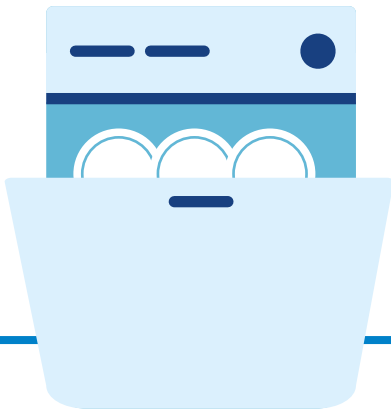
Hardness due to calcium and magnesium sulphates isn't affected by boiling and is sometimes referred to as 'permanent hardness'.



For more details on the quality of drinking water, visit yorkshirewater.com

Dishwashers

Harmless limescale is formed when hard water is heated. Most modern dishwashers have built-in water softeners that prevent white film or spots forming on glassware and crockery. You can also add water-softening products to older machines. Make sure you top up your dishwasher with salt and rinse aid when they need it. If you have a problem with your dishwasher, please check the manufacturer's instructions for how to adjust the setting of the softener to suit the water hardness.



Water softeners

We're responsible for supplying clean, wholesome water. Our customers, both domestic and industrial, may want to change the hardness of their water. So we leave it up to you to decide whether artificial softening is the right choice.

You may choose to fit softening equipment at home. You can do this as long as it's in line with the Water Supply (Water Fittings) Regulations 1999. There are softening devices suitable for home use available from reputable companies. You must keep an unsoftened supply for drinking purposes as the softening process adds sodium to the water.

We don't advise on whether or not a water softener can be fitted. For advice on installing filters, softeners and other devices, please contact British Water. britishwater.co.uk

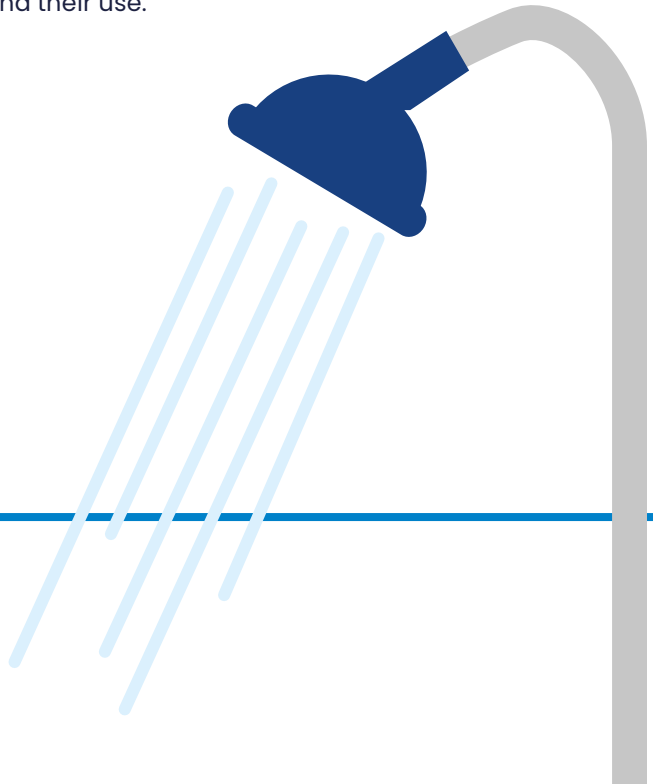
Water conditioners

Water conditioners are designed to help reduce the problems of hard water by preventing hardness deposits from sticking to heating elements and pipes.

Unlike water softeners, these devices don't chemically remove the hardness from the water. Although you may benefit from installing water conditioners, they haven't worked everywhere and we do not recommend their use.

Removing scale from hot water taps and shower heads

Limescale can build up in taps and shower heads fed from your hot-water system. You can clean taps and shower heads using a descaler, available from hardware stores. Don't forget to rinse fully after using any cleaning products.



Does water hardness have any health benefits?

An adequate daily intake of calcium is essential for normal growth and health. Foods such as dairy products, beans, eggs, nuts, cauliflower and spinach contain calcium. The hardness of water has a small but beneficial effect on a healthy diet.

There is no known health risk associated with hardness and we don't investigate or collect samples for hardness. If you want detailed information about hardness in your area, we can give you this. We don't soften water at any water treatment plants.

Check your water hardness

Find out the water hardness in your area. Water hardness is the measure of the concentration of calcium and magnesium salts in your water – two of the essential minerals that your body needs. Go to our website yorkshirewater.com/your-water/water-hardness, enter your postcode and get your hardness reading which you can convert into various units of measurement using our handy calculator.



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Need to get in touch



Visit our website

yorkshirewater.com

Get more from Yorkshire Water

Sign up to our mailing list and be the first to hear about:

- what we're up to
- our help and support services
- water saving advice
- top tips to avoid blockages



yorkshirewater.com/sign-up

Other ways to contact us



yorkshirewater.com/contact

Call us on **0345 124 24 24**

For billing enquiries we're open Monday to Friday **8am–6pm** and Saturday **9am–5pm**. For water and sewerage enquiries we're open Monday to Saturday **6.30am–10pm** and Sunday **7.30am–10pm**.

We're open **24/7** for emergency calls.

How was our visit?

We always want to provide our customers with the best possible service. If you've had great customer service or been impressed by a member of our team, you can nominate them for a national customer service award. Simply fill out the form on our website:

yorkshirewater.com/wow