



Your galvanised wrought iron pipes and water quality

One of South East Water's main priorities is to provide our customers with high quality drinking water. Sourced largely from protected catchments, our water is the envy of many. In some cases, however, this high quality water can deteriorate inside a customer's property because of corroding galvanised wrought iron (GWI) pipes.

This information sheet aims to assist you in identifying whether your GWI pipes may be corroded and provide some possible solutions in dealing with this issue.

Why does corrosion occur?

Many years ago it was found that GWI pipes are not suitable for carrying drinking water in many parts of Australia, particularly on the east coast where soft water is common and reacts aggressively to this type of pipe.

Is this corrosion harmful?

Discoloured water from corroded GWI pipes is not harmful to your health, but it may have a metallic taste due to the levels of iron in

the water. The Australian Drinking Water Guidelines has set an aesthetic limit for iron of 0.3 milligrams per litre (mg/L), based on taste and colour considerations. The water we provide has an average iron concentration of less than 0.1 mg/L.

How can you detect GWI pipe corrosion?

You may have corroded pipes if you notice:

1. Yellow/brown/red water coming from the cold water tap.
2. An unpleasant taste to the water, particularly noticeable in tea and coffee.
3. A reduction in your water pressure/flow because the pipes and fittings are becoming blocked with rust flakes and particles.
4. Stains on washing or on plumbing appliances.
5. Blocked filters.
6. Repeated flushing of taps to get clear water.

Please note that while there can be some other causes for the above symptoms, the following simple tests will assist in confirming the existence of GWI pipes within your home.

Visual Test

GW1 pipe is a shiny grey colour (scratching the surface can help to determine the colour) whereas copper pipe is an orange/brown colour. You may notice GW1 pipe corrosion on the outside of pipes with orange rust stains, visible particularly at fittings.

Water Quality Test

The best time to do this test is first thing in the morning before the water is used in the house. A white ice-cream container or bucket is all that is needed to conduct this simple test.

Fill the bucket with two to three litres of water at the front tap. The water will usually be yellow/brown if GW1 corrosion is present. Flush the tap (on full) for about two minutes, and refill the bucket. If the water is clear then GW1 pipes were probably the cause of the discoloured water. If the water remains discoloured then the problem may lie in our water supply system in the street and you should contact us for assistance.

This test can also be done at any tap within your property. If discoloured water and clear water alternate during the day then GW1 corrosion is probably the cause for the discoloured water.

What can you do about GW1 pipe corrosion?

As GW1 pipe corrosion isn't a health issue, there is no urgency to take action. However, once you have determined that you have corroded pipes there are some steps you can take to eliminate the problem.

Turning the tap on full for one to two minutes will reduce the water discolouration. This is of course only a temporary solution, as when the tap is turned off and left to sit, the problem will return. It will also mean that you must flush the water using this process every time you notice the discolouration occurring.

Another solution is to install a filter on your taps (this will probably only need to be done on taps used for drinking water). However, South East Water does not sell or promote water filters, as we provide high quality water through our supply system. For more information on the use of water filters please refer to our website at southeastwater.com.au

The best long-term solution to alleviate corrosion is to replace the old pipes with new ones made from an alternate material. You can select a plumber of your choice or alternatively South East Water can provide a licensed plumber to carry out these works for you by calling 132 812.

It is worthwhile mentioning that while some customers may have replaced their internal GW1 pipes with an alternate material, there may still be some small sections made from GW1 that were too hard to get to, such as elbows, joints or piping in concrete slabs or walls. These small sections may still cause occasional discoloured water.

Note: Since the mid 1970's Victorian plumbing industry regulations have not permitted GW1 pipes to be used for carrying drinking water. However, there are many older residences that still have GW1 pipes.

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