



Discoloured Water

A sudden increase in the rate of water flow through pipes or a change in direction of the water has the potential to stir up harmless sediment that has settled in pipes over a long period of time. This sediment is disturbed and suspended in the water, giving it a discoloured appearance. Although unsightly, the suspended particles that cause discoloured water are harmless to health and the water is safe to drink.

Discoloured water occurs occasionally in all large water supply systems. Suspended particles that cause discolouration mainly comprise of very fine iron, manganese and clay particles that naturally enter water supplies through groundwater bores and stream flow into dams. Aging of pipes, including the fittings and cement lining, also produce sediment.

Sometimes these particles settle in water mains over winter when flows are low and may adhere to the inside of pipes.

Whenever there is a sudden increase of water flow through pipes there is the potential to stir up the sediment.

The sediment becomes suspended in the water giving it a yellow to reddish brown tinge.

Discoloured water is usually more frequent in spring or summer when water demand increases. But it can happen at any time.

Operational incidents, such as burst water mains, or planned water main shutdowns may also cause discoloured water due to an increase in water flows or a change of direction in the pipes. 'White water' can also follow after work on water mains or when a faulty air valve allows air to enter the pipe. If you experience white water, the Water Corporation has a separate fact sheet on this topic (see Information Sheet No.2 – White Water).

COMMONLY ASKED QUESTIONS

What should I do if I experience discoloured water?

Be assured that if you experience discoloured water, it is usually only a temporary situation. We advise you to run the garden tap closest to your water meter for two minutes to see if it clears. If it doesn't clear, immediately call our 24-hour Faults, Emergencies and Security Helpline **13 13 75**.

What can I do if it stains my laundry?

The staining of your laundry from discoloured water is due to particles of sediment lodged in the fabric. The stain only becomes permanent if the laundry is allowed to dry. It is therefore essential to keep stained laundry immersed in water and call our **13 13 75** Helpline. We will arrange to deliver a cleaning agent and instructions to help remove any stains from your laundry.

What causes discoloured water?

Discoloured water is caused by a build-up of sediment that settles in pipes. As the warmer weather approaches, water-use escalates and increased water flow in pipes can stir up the sediment.

It may also occur when flows increase due to burst water mains or where operational changes reverse the flows in water mains, or in rare circumstances from subtle changes in the water quality from different sources.

When can it occur?

Discoloured water is most frequent in early spring or summer. However, it can occur at any time.

Is discoloured water safe to drink?

Yes. Although unsightly, the suspended particles that cause discoloured water are harmless to health and the water is safe to drink. The Water Corporation has a comprehensive monitoring and testing program. Regular water samples are collected and treated from water sources, treatment plants and pipe networks supplying our customers.

These tests look at microbiological and chemical levels that can affect customers' health, as well as aesthetic quality levels that can affect the taste and colour of water.

Bacteriological and other chemical analyses are carried out by independent, government approved laboratories.

What is the Water Corporation doing to minimise the problem?

To ensure the Water Corporation continues to provide safe and reliable drinking water for our customers water mains are flushed in areas experiencing discoloured water.

This method is also undertaken to overcome discoloured water incidents affecting individual customers.

Flushing is only carried out if deemed the most appropriate action and water-efficient air scouring equipment is now used for widespread mains cleaning throughout Perth.

Air-scouring technology involves injecting compressed air into pipelines through fire hydrants. The pressure dislodges sediment build-up in the pipes, enabling it to be flushed from a hydrant further down the pipe.

The Water Corporation makes every effort to adopt water conservation practices in all of its operations to minimise water wastage. Cleaning water mains by air-scouring uses 60% less water than water flushing techniques.

We are actively working with other utilities and research organisations to improve water treatment of water supplies and is investigating ways to minimise the incidence of discoloured water.

How to use the Water Corporation's Cleaning Powders

Included in your Water Corporation cleaner kit are two containers of citric acid and one small container of sodium dithionate.

For Safety:

Please keep these away from children and dispose of any powders remaining after you have soaked your laundry.

The powders can cause irritation if they come into contact with skin or eyes or if they are accidentally swallowed.

Wear rubber gloves when using the powder and avoid splashing the solution in eyes.

For Best Results:

Agitate clothes regularly during soaking to get the best results. Rubbing stains will also help.

The powders only work on stains caused by the water pipe sediment and will not remove other stains such as grease, blood or food items. To dispose of the solution when finished, dilute with more water and flush down the drain while running the tap.

Rinse clothes in fresh water to remove any residue and wash again as normal to remove any remaining dirt etc. Repeat the soaking procedure if necessary.

Citric acid

For use with coloured and white laundry.

Use only in a small plastic bucket, not in washing machine or stainless steel tub as scouring may occur.

Mixing and soaking:

1. Dissolve contents of one container in a 10 litre (2 gallons) bucket of water.
2. Soak clothes in the solution for 2 to 12 hours until stains are removed.
3. Rinse in clear water and rewash as normal.

Safety and First Aid Instructions

Hazards: Irritation of eyes and nostrils
Personal Protection: Wear rubber gloves
Handling precautions: Avoid contact with eyes or nostrils

If poisoning occurs please ring the Poisons Information Centre 24 hour hotline: **13 11 26**

Hazard	Effect	First Aid
Product in eye	Irritation	Wash eye immediately with running water for 10 minutes. Seek medical attention if irritation develops.
Product on skin	Mild irritation	Wash affected areas. Seek medical attention if irritation develops.
Product inhaled	Irritation	Wash around nose thoroughly with water, if effects persist seek medical attention.
Product swallowed	May irritate mouth or throat	Wash mouth with water and drink water or milk. If effects persist seek medical attention.

Sodium Dithionite

For use with whites only.

Ensure good ventilation, as solution might give off offensive odour.

Mixing and soaking:

1. Dissolve contents of container in about 30 litres (6 gallons) of cold water in laundry trough (do not soak in washing machine).
2. Add 1 tablespoon of your regular liquid or powder laundry detergent to solution and agitate.
3. Soak stained items until staining is removed.

Generally 15 minutes to 1 hour is sufficient, but severe staining might take longer.

4. Rinse in clear water and rewash as normal.

Safety and First Aid Instructions

Hazards: Irritating fumes; use in well ventilated areas.
 Personal Protection: Wear rubber gloves
 Handling precautions: Avoid breathing powder, dust or fumes, and contact with eyes or nostrils

If poisoning occurs please ring the Poisons Information Centre 24 hour hotline: **13 11 26**

Hazard	Effect	First Aid
Product in eye	Irritation	Wash eye immediately with running water for 10 minutes. Seek medical attention if irritation develops.
Product on skin	Mild irritation	Wash off thoroughly with water.
Product inhaled	Irritation	If effects persist seek medical attention.
Product swallowed	May irritate mouth or throat	Wash mouth with water and drink water or milk. If effects persist seek medical attention.

If you have any further enquiries

Please call the Water Corporation's 24 hour Faults, Emergencies and Security Helpline on **13 13 75**

To the best of the knowledge of the Water Corporation, its directors, officers and staff, the information provided in this bulletin is correct, scientifically accurate and supported by current data. The statements made in this bulletin are based on Australian and international standards in effect as at the time of publication.