

## Our water sources

# Port Campbell, Peterborough and Timboon



**Water for Port Campbell, Peterborough and Timboon is sourced from the Dilwyn Aquifer, a deep underground water-bearing geological formation that stretches across South West Victoria and into South Australia.**

## Water source

The Dilwyn Aquifer comprises strongly confined quartz sand that is up to 1.5 kilometres deep in places. It's isolated from more shallow aquifers by layers that prevent water moving from one aquifer to the other.

The water in the aquifer is very old, having fallen as rainfall between 900 and 30,000 years ago. In some areas, there is enough natural pressure for the water to be classified as artesian where it rises to the surface without the need for pumping.

Because the water comes from deep underground, it has naturally occurring mineral salts which can impact the taste.

## Treatment process

When groundwater from the Dilwyn Aquifer is extracted, it can range from 37 to 60 degrees celsius in temperature.

We treat the water to help remove small amounts of minerals, such as iron and manganese. It's then aerated, which helps to remove some organic odour compounds, and cooled to lower the temperature to between 23 and 26 degrees celsius.

The water is disinfected using chlorine or sodium hypochlorite to maintain safe drinking standards while it's stored in tanks or basins ready for distribution to customers.

## Town supplies

The raw water for Port Campbell, Timboon and Peterborough is extracted from a 500-metre deep bore at the Port Campbell Water Treatment Plant.

It's stored on site in a large clear water storage tank ready for distribution across the supply network.

For Port Campbell, the water is pumped up to a tank on the eastern outskirts of town. It then flows by gravity along pipes, supplying around 270 customers.

For Timboon, the water is pumped along a 17-kilometre long main from the Port Campbell tank to a covered storage basin in Leahys Lane. It then flows by gravity to most of the town's 550 customers. We also have two elevated tanks to pump water to a small number of properties located on higher ground.

Peterborough's 360 customers are supplied via a connection from the Timboon main. A four-kilometre pipeline runs to a tank in Brumbys Road and then the water is fed by gravity to the town along a six-kilometre pipeline.

## Water hardness

Water hardness is a measure of calcium and magnesium carbonate in the water. These carbonates are natural minerals that dissolve into water as it moves through soil or rock in the catchment.

The Australian Drinking Water Guidelines (2011) have a scale of water hardness as it impacts on water quality. Water less than 60 milligrams/litre (mg/L) is regarded as "soft", while water higher than 200 mg/L is described as "hard".

Our supplies range from an average of 14 mg/L in towns supplied by a surface water catchment to 440 mg/L in towns where the water is sourced from the ground.

It's important to note that hard water is not a concern from a health perspective, however it may leave spots on shower screens, or drinking glasses because the minerals remain after the water has evaporated.

When hard water is heated, the minerals that cause hardness come out of the water and are deposited as scale. This can affect kettles, hot water services, dishwashers, pipes and fittings. Scale is harmless, but will build up over time

Sometimes hot water systems can corrode if the wrong type of anode is used. An anode is the metal rod installed inside a hot water system that preferentially corrodes to protect the hot water system.

Speak to your local plumber or your hot water system supplier to ensure you have the right type of sacrificial anode appropriate for the hardness of your water supply. It's also important to follow the manufacturers' recommendations on maintenance if you fit any additional water treatment devices in your house.

## Reducing the impact

There are several ways to reduce the effects of hard water in your home. These include:

- Keep your hot water system to below 60 degrees Celsius.
- Use a water softener to reduce scaling in hot water services and associated pipework. NOTE - It's not recommended that you drink softened water. Softeners can significantly increase the level of salt in your water.
- Avoid spots on glassware/shower screens etc. by using liquid soaps and drying any wet surfaces immediately.



- Use acid-based products (e.g. vinegar) to clean domestic appliances, making sure to rinse them thoroughly after use.
- If you're installing a new dishwasher, check your water hardness and follow the manufacturer's recommendations.
- If you're away from your property for extended periods of time, run a tap for a period of several minutes on your return to help flush "stale" water from your pipes.

