

Free chlorination trial

Why did you change the way you treat drinking water in Castlemaine?

In October 2018 we changed the way we treat the Castlemaine drinking water supply in order to improve disinfection and maintain chlorine levels across the entire water supply network.

The treatment disinfection method is called free chlorination, or chlorination.

Why are chlorine levels important?

Maintaining chlorine levels throughout a water supply network is important. It protects against potential contamination as the water travels through our water mains to customers' properties after being treated at the water treatment plant.

Why is chlorine used in the treatment process?

Chlorine is a naturally occurring gas and is very effective in killing disease-causing bacteria or viruses that may be present in untreated drinking water.

Chlorine is used to disinfect the drinking water supply. Disinfection is needed to ensure the drinking water is safe to drink and meets the requirements of the Australian Drinking Water Guidelines.

Is it more a trial in treatment or a trial for the Castlemaine area?

The chlorination treatment method itself is not a trial. It is a tried and tested treatment method that is used widely across Australia and internationally.

We have been trialling the effectiveness of this method in the Castlemaine water supply network.

Are there other systems in our region that receive chlorination treatment?

Yes. We have 12 other water supply systems within the Coliban Water region that receive chlorination treatment.

Approximately 87 percent of water treatment plants in Victoria use chlorination treatment as a disinfection method. The remaining plants use the chloramination treatment method.

Why don't we use chloramination for disinfection treatment?

The Castlemaine water supply network was previously disinfected by chloramination.

Chloramination involves adding ammonia to chlorine to form a disinfectant known as chloramine. The chloramine is added to the drinking water to disinfect and maintain chlorine levels in the water supply network.

Chlorination involves treating the water with chlorine only, essentially removing a chemical from the treatment process.

Why are you changing the treatment method used?

The Castlemaine Water Treatment Plant is located in Chewton at McCay Reservoir.

Due to the configuration of the Castlemaine water supply network, and the distance the water has to travel once it is treated, chloramination was not maintaining the steady chlorine levels across the network needed to ensure the drinking water continues to meet the Australian Drinking Water Guidelines.

Chlorination is found to be more effective in maintaining chlorine levels within a water supply network.

Are there other methods that could be used to disinfect the water?

There are other disinfection methods used for drinking water, such as ozone treatment and UV light. However these methods do not provide disinfectant residuals (or levels) within a water supply network.

The Castlemaine Water Treatment Plant already has ozone treatment in place as a form of disinfection, which is used in conjunction with chlorination.

When did the trial start?

The trial commenced the week of Monday 22 October 2018.

The effectiveness of the trial will be reviewed every three months over a 12-month period.

Why is the trial needed over 12 months?

In order to review the effectiveness of this disinfection method in Castlemaine we need to see how it works over the course of a year, to see how seasonal fluctuations that take place during that period may be affected.

Three month trial review

What are the findings following the first three months of the trial?

We are currently at the end of our first three month review of the planned 12-month period.

The water quality data over this time is showing an improvement in chlorine levels across the network. Particularly in areas where there has been very low chlorine levels previously.

Why has there been a strong smell and taste to the water?

We are aware that some customers in areas of our supply network have experienced strong chlorine taste and odour as a result of this change.

Chlorine dissipates over time. The recent very warm weather and greater use of water is having an impact on the chlorine dissipation in some parts of our supply network.

What can you do about this?

We are making adjustments to the treatment dosing to ensure that seasonal fluctuations do not have a greater impact on customers, whilst ensuring safe levels are maintained throughout the water supply network.

What areas make up the Castlemaine network?

The Castlemaine water supply network supplies water to the towns of Castlemaine, Chewton, Campbells Creek, Elphinstone, Fryerstown, Harcourt, Barkers Creek, Taradale, Maldon, Yapeen, Newstead and Guildford.

Does this change affect my service?

This change in treatment will not cause disruption to your water supply service or pressure. The water is safe and continues to meet the requirements of the Australian Drinking Water Guidelines.

Is the water safe for my pets?

Yes, the water is safe for your pets to drink.

Further advice can be sought from your local pet shop regarding aquariums. You may like to review your treatment process for aquarium water due to the change to chlorination.

Can chlorine cause skin irritations?

Chlorine sensitivity can be an issue for a very small number of people. If you believe that you are sensitive to chlorine, you can fill a jug with drinking water and place it in the fridge for at least one hour to allow the taste of chlorine to dissipate.

Additionally, leaving the water in the bath or sink for a number of minutes prior to use can assist with the smell of chlorine dissipating.

Whilst the water is safe, there are commercial domestic water filters available that reduce the presence of chlorine in the supply.