

Why is the water being fluoridated?



A significant issue in support of fluoridation is that the Northern Rivers continues to have the worst rates of tooth decay amongst 12 year olds in NSW, second worst amongst 5 year olds and one of the highest rates of hospital admissions for dental treatment under general anaesthetic in NSW.

The overwhelming majority of dental practitioners, dental academics and other health professionals support water fluoridation according to the Australian Dental Association.

The benefits of fluoridation of water supplies are well documented. Water fluoridation is the topping up of the levels of naturally occurring fluoride in the water to strengthen teeth against tooth decay.

Most Australian towns and cities were fluoridated in the 1960s and 70s, and today around 90% of Australians experience the decay fighting benefits of water fluoridation. Fluoridated water means fewer fillings, fewer extractions, and fewer visits to the dentist.

Scientific studies in Australian and overseas consistently report reduced tooth decay in children and adults who drink fluoridated water.

The 2002 Australian Child Dental Health Survey examined more than 136,000 children across Australia. The survey found that no matter which state or territory children came from, what age group they were from, whether they were rich or poor, or whether they lived in the capital city or regionally or remotely, children who drank fluoridated water had significantly less tooth decay than children who didn't.

Who decided to fluoridate?

The addition of fluoride to public water supplies in NSW is controlled by the NSW Fluoridation of Public Water Supplies Act 1957.

Under this Act a water utility cannot start fluoridation of public water supplies without an approval or direction from the Director General of NSW Health. A water utility makes either an application to the Director General to fluoridate the water supply or seeks a direction from the Director General. Once fluoridation has started, a water utility cannot stop fluoridating the water without the Director General revoking the approval or direction.

Ballina Shire Councillors resolved in 2009 to support fluoridation of Ballina's water supplies. This decision followed a long period of consultation over several years with the community, health agencies and health practitioners.

Since that time, Ballina Shire Council and Rous Water have undertaken design and construction works to implement fluoridation across the Shire. Since January 2015, Ballina has been supplying fluoridated water to the communities of Wardell and Meerschaumvale from its Marom Creek Water Treatment Plant. The remainder of the Shire has received fluoridated water since early September 2015.

Council is now subject to a direction by the NSW Government to implement the fluoride adjustment to the water supply. The direction is a statutory power available to the NSW Government meaning, even if it wanted to discontinue, the Council is not authorised to make such a decision without the support of the NSW Government.

Are there any adverse health effects associated with water fluoridation?

This section of information is provided by the Australian Dental Association.

Drinking optimally fluoridated water is not harmful to human health. Water fluoridation is possibly the most widely studied public health measure of all time, and hundreds of studies over many decades have assessed possible associations between water fluoridation and a wide range of health conditions. Systematic reviews conducted in Australia and overseas consistently report that scientific evidence does not support an association between water fluoridation and any adverse health effect.

For further information:

NSW Health website:

health.nsw.gov.au/environment/water

Australian Dental Association website:

ada.org.au/oralhealth/fln/flfaqs.aspx

What safeguards, monitoring and testing are in place?

The supply of fluoridated water is undertaken in a manner that ensures the water supplied to customers meets the standards prescribed by NSW Health.

All employees who operate and monitor the fluoride plants have attended the NSW Fluoride Operators Training Course and hold the certificate that is issued after successful completion of that course.

To ensure that the fluoride plants operate efficiently and effectively, a trained operator visits each plant every day of the week. During the visits, the operator checks all the equipment in the plant and tests the fluoridated water to comply with the standards. In addition to the personal inspection, each plant is continuously monitored for fluoride in the water.

Any deviation from the standard results in the plant automatically shutting down and reporting to a monitoring service that is staffed 24 hours per day, seven days per week. The operation of the plants is continuously recorded to ensure that we have a complete history of all aspects of the fluoride plants' performance.

What fluoride chemicals are being used?

Two types of fluoride chemicals are used in the water supplied to Ballina Shire residents. Ballina Shire Council uses sodium fluoride at its Marom Creek plant. Rous Water uses sodium silicofluoride at the Corndale and Knockrow plants.

The choice of fluoride chemical used is largely based on cost and convenience.

Both chemicals are effective and safe water supply additives. For the smaller plants at Clunes, Dorrroughby and Marom Creek, sodium fluoride is used because it is packaged in small 5kg bottles, which make handling easier and storage possible. The larger plants at Corndale and Knockrow use sodium silicofluoride, which is delivered to the plants in one tonne bulk bags.

The chemicals are sourced from the major drinking water chemical suppliers according to specifications that meet the requirements of the NSW Code of Practice for Fluoridation of Public Water Supplies and the Australian Drinking Water Guidelines. This ensures the chemicals will meet the health standards for purity and composition so that our fluoridated water meets the requirements of NSW Health.

The chemicals are added to the water to achieve a fluoride level of 1mg/L.

For further information:

NSW Health website:

health.nsw.gov.au/environment/water/Documents/fluoridation-questions-and-answers-nsw.pdf

What can I do if I don't want to receive fluoridated water? How can I remove fluoride from the water?

Council, NSW Health and the vast majority of health experts recommend consumers do not remove fluoride from their supplied water.

However, if a consumer wishes to remove fluoride the following should be noted:

- Advice from NSW Health is that reverse-osmosis membranes are the best method for removing fluoride domestically. Domestic "under sink" type reverse-osmosis plants are available on the market from numerous suppliers. The internet or your local plumbing supplier should be able to provide further details.
- Distillation of the water would also remove fluoride.
- Standard water filters (usually carbon based – eg Britta) will not remove fluoride.
- Boiling water will not remove fluoride as fluoride does not evaporate easily. As the volume of water decreases through boiling, the fluoride concentration would actually increase.
- There are a number of manufacturers suggesting their products utilising activated aluminium or ion exchange resins can also remove fluoride, however NSW Health is unable to confirm whether these systems function as claimed.

When was fluoride dosing turned on? How was the community informed?

Ballina Shire Council has been supplying fluoridated water to the communities of Wardell and Meerschaum Vale from its Marom Creek Water Treatment Plant since January 2015. Residents in those areas were informed through direct mailouts before the plant was activated.

Ballina Shire Council and Rous Water began supplying fluoridated water to the remainder of Ballina Shire residents in early September 2015. Residents were informed by direct mailouts from Ballina Shire Council, and media releases organised by Rous Water prior to activation of the dosing plants.

Will there be any other taste or quality issues? Do I have to change anything else when the water contains fluoride?

Customers do not need to do anything in preparation for fluoridated water. Fluoride has no taste or smell, so water fluoridation will not change the taste or smell of drinking water.

Sensitive groups such as haemodialysis patients will not be impacted. The systems they use as part of their dialysis treatments also remove fluoride from the water – such as reverse-osmosis membranes.

Can I wash with fluoridated water? Can I use it on the garden?

Customers do not need to do anything, and there is no reason that fluoridated water should not be used for bathing or gardening.

Where are the fluoride facilities located?

Ballina has been supplying fluoridated water to the communities of Wardell and Meerschaumvale from its **Marom Creek Water Treatment Plant** since January 2015.

The remaining areas of Ballina Shire have been receiving fluoridated water since early September 2015. Rous Water fluoridates the water, which is then distributed to residents by Ballina Shire Council. Rous Water adds fluoride to Ballina Shire's water supply at the following plants:

- The **Knockrow plant** servicing the coastal residents of Ballina Shire Council including Rous Water rural customers.
- The **Corndale plant** servicing Alstonville and Wollongbar residents of Ballina Shire Council including Rous Water rural customers.

