

# Fact sheet

## Fluoridation of water supplies



### What is fluoride?

Fluoride is a naturally occurring mineral found in soil, rocks, seawater and groundwater. Seawater contains up to 1.4 parts per million (ppm) fluoride, while some groundwater in western Queensland can have over 3 ppm.

### Why is fluoride added to our water?

Fluoride is added to drinking water because it strengthens tooth enamel and reduces tooth decay. The Department of Health is responsible for encouraging councils in Queensland to add fluoride to drinking water.

Fluoridation in Queensland is regulated in accordance with the *Water Fluoridation Act 2008* and *Water Fluoridation Regulation 2008*. For more information see [www.health.qld.gov.au/fluoride/water\\_fluoridation.asp](http://www.health.qld.gov.au/fluoride/water_fluoridation.asp).

Under the Act, each local government in Queensland is able to make the decision whether or not the town water supplies within their area are fluoridated. As the region's bulk water authority, Seqwater has a responsibility to councils to provide an assessment of potential impacts of fluoridation on the South East Queensland bulk water supply system.

Full costs to reverse the decision to fluoridate the water supply must be borne by the relevant local council.

### Is water fluoridation safe?

For more than 50 years, the addition of fluoride to drinking water has proven to be a safe and effective way to reduce tooth decay and improve oral health in communities throughout Australia and around the world.

Fluoridation is supported by many peak health bodies including the National Health and Medical Research Council, the Australian Dental Association, the Australian Medical Association and the World Health Organization.

The only health consideration with optimally fluoridated water is dental fluorosis, which occurs in a small proportion of children when they are exposed to too much fluoride in food, water or toothpaste.

Dental fluorosis in children is typically mild and shows up as white flecks in the teeth. Mild fluorosis does not weaken teeth and is of only cosmetic concern.

### Where is fluoride added in South East Queensland?

In December 2008 a major rollout of fluoridation of drinking water supplies began in Queensland, with the majority of homes in South East Queensland now receiving fluoride in their tap water.

Seqwater operates more than 20 fluoridated drinking water supplies.

### How much fluoride is added to drinking water in Queensland?

The Department of Health prescribes the optimal fluoride concentration levels for South East Queensland to be 0.8 ppm.

Hotter parts of Queensland, where people drink more water, have optimal fluoride levels at either 0.6 or 0.7 ppm.

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### How much fluoride is added to drinking water in other states?

In New South Wales, the level of fluoride in the water supply must stay between 0.6 and 1.1 ppm, varying according to daily temperatures.

The Victorian authority [administering fluoride] must not add fluoride to an extent that results in an average optimum concentration in excess of 1 ppm over any 12-month period in any water sampling location. The fluoride concentration in the drinking water supply must not exceed 1.5 ppm as specified in the *Australian Drinking Water Guidelines*.

### How are fluoride levels checked?

Seqwater monitors the fluoride concentration in drinking water continuously and reports regularly to Queensland Health on its testing program.

For information about our water testing results, including compliance with the health standards set in the Australian Drinking Water Guidelines and the Public Health Regulation 2005, visit [www.seqwater.com.au/about/publications/water-quality-reports](http://www.seqwater.com.au/about/publications/water-quality-reports) for Seqwater's Customer Confidence Report.

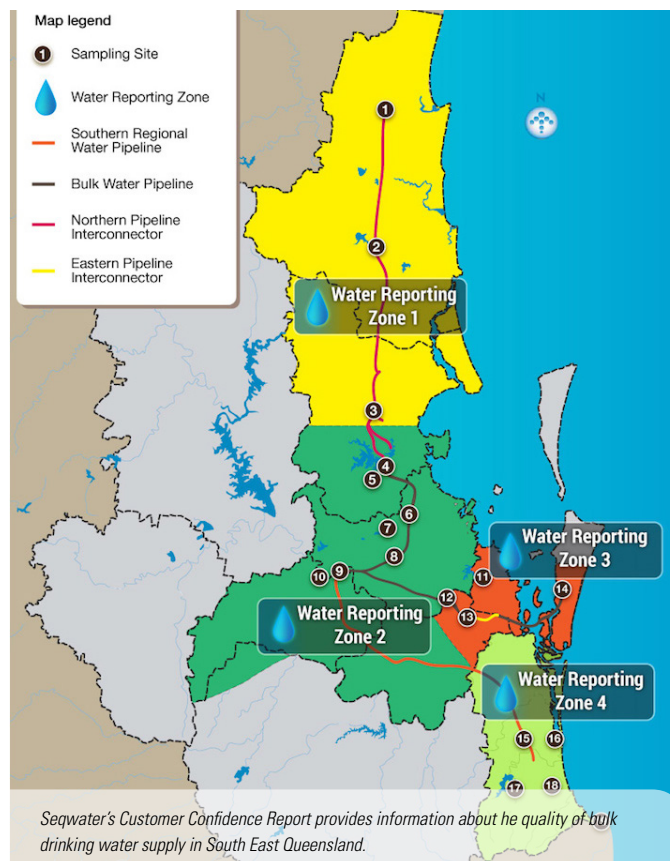
### What types of fluoride are used by Seqwater?

Seqwater uses either sodium fluorosilicate or sodium fluoride at its water treatments plants, depending on the size and requirements of the plant. Larger plants like the Mount Crosby Water Treatment Plant use sodium fluorosilicate.

### Where is the fluoride sourced?

Seqwater buys fluoride from Axieo Pty Ltd (acquired Quantum Chemicals in February 2016). The product meets the *Queensland Fluoridation Code of Practice*.

Axieo sources its fluoride from Hunan Heaven Material Co Ltd (part of Shanghai Mintchem Development Group), a company with certification to the US ANSI/NSF Standard 60 – *Drinking Water Treatment Chemicals – Health Effects*.



Axieo subjects each batch of fluoride it receives from Hunan Heaven to stringent, independent quality testing using National Association of Testing Authorities accredited laboratories. Each batch must meet the quality standards specified in the Queensland Water Fluoridation Code of Practice before its delivery to Seqwater.

### Further information

More information about Fluoride is available at [www.seqwater.com.au/about/publications](http://www.seqwater.com.au/about/publications).

The *Fluoridation Code of Practice* can be viewed at [www.health.qld.gov.au/public-health/industry-environment/environment-land-water/water/fluoridation](http://www.health.qld.gov.au/public-health/industry-environment/environment-land-water/water/fluoridation).

Section 4 of the code discusses fluoridation chemicals, including sodium fluorosilicate and sodium fluoride which are used by Seqwater.