

Fluoridation News

Massive expansion of fluoridation in the United States over the past ten years

A lot of noise is made by anti-fluoride groups about communities that decide to stop water fluoridation. But little or nothing is heard from them when communities decide to introduce or retain fluoridation.

Increase in coverage by an estimated 24 million people

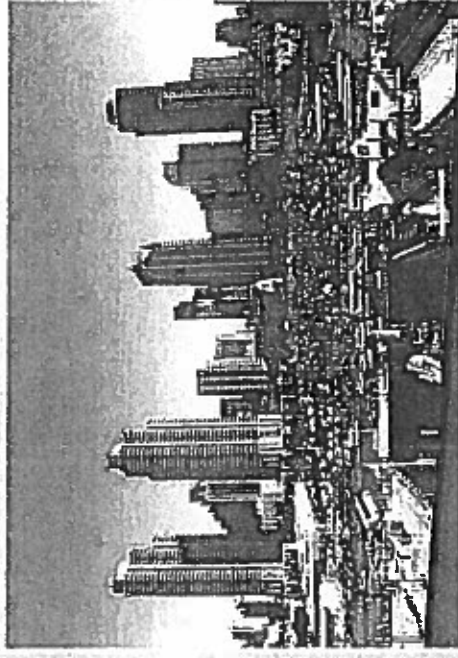
Between 2002 and 2012, fluoridation coverage in the United States has increased by around 24 million people. Since 2008, US towns, cities and rural areas with combined populations of just under 9 million have started to receive fluoridated water for the first time.

Figures published by the US Centers for Disease Control and Prevention (CDC) show that, as at 31st December 2010, there were 204 million Americans receiving fluoridated water - 10 million with natural fluoride at or above optimal levels and 194 million with artificially adjusted fluoride levels in their water.

Introduction of fluoridation in San Diego

The largest community to commence fluoridation in recent years is San Diego (population 1.3 million) in south-west California, which was previously the largest non-fluoridated city in the US. That scheme came into operation in February 2011.

See next page for list of places in the United States where, between 2005 and 2010, there were votes to introduce or retain water fluoridation.



San Diego, California, where a new fluoridation scheme was introduced in February 2011. Around 1.3 million San Diego residents are now benefiting from the supply of optimally fluoridated water.

Places voting to commence fluoridation

Places in the US which, between 2005 and 2010, voted to commence fluoridation include:

- * Inglewood, California (pop 110,000)
- * New Bedford, Massachusetts (pop 95,000)
- * Pasco, Washington (pop 60,000)
- * Watsonville, California (pop 52,000)
- * West Sacramento, California (pop 49,000)
- * Hancock, Mississippi (pop 44,000)
- * Poughkeepsie, New York (pop 43,000)
- * Atlantic City, New Jersey (pop 40,000)
- * Plant City, Florida (pop 35,000)
- * Garden City, Kansas (pop 27,000)
- * Seguin, Texas (pop 27,000)
- * Mount Pleasant, Michigan (pop 26,000)
- * Tipp City and Vandalia, Ohio (pop 25,000)
- * El Dorado, Arkansas (pop 19,000)
- * Erie, Colorado (pop 18,000)
- * New Hanover County, North Carolina (pop 15,000)
- * South Blount County, Tennessee (pop 14,000)
- * Haskell County, Oklahoma (pop 13,000)

See map on next page.

Places voting to retain fluoridation

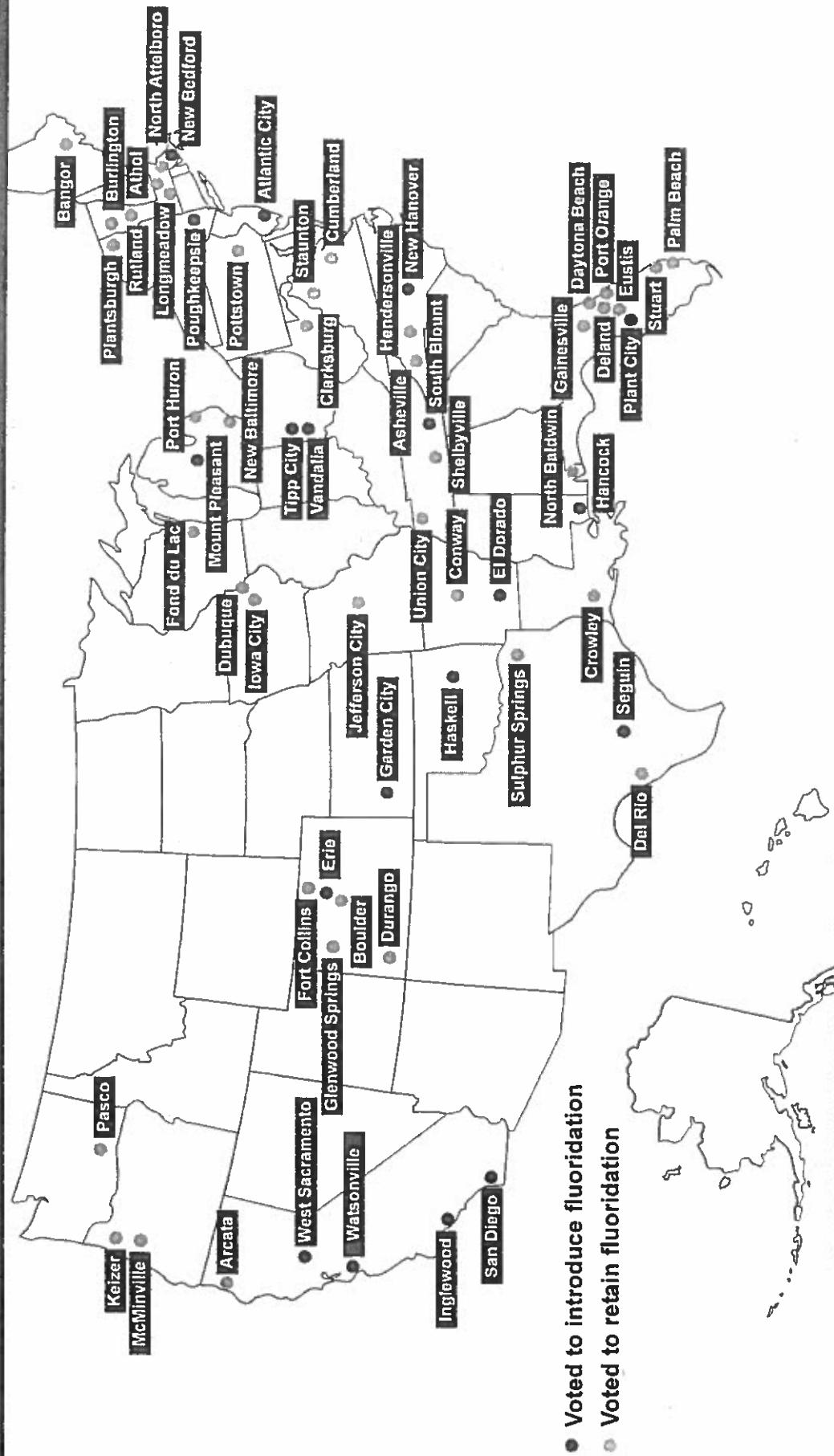
Between 2005 and 2010, many US communities with existing fluoridation schemes voted to retain them, including:

- * Fort Collins, Colorado (pop 144,000)
- * Gainesville, Florida (pop 125,000)
- * Boulder, Colorado (pop 97,000)
- * Asheville, North Carolina (pop 84,000)
- * Iowa City, Iowa (pop 68,000)
- * Daytona Beach, Florida (pop 61,000)
- * Conway, Arkansas (pop 59,000)
- * Dubuque, Iowa (pop 58,000)
- * Port Orange, Florida (pop 56,000)
- * Jefferson City, Missouri (pop 43,000)
- * Burlington, Vermont (pop 42,000)
- * Font du Lac, Wisconsin (pop 42,000)
- * Keizer, Oregon (pop 36,000)
- * Del Rio, Texas (pop 36,000)
- * McMinville, Oregon (pop 32,000)
- * Bangor, Maine (pop 35,000)
- * Port Huron, Michigan (pop 30,000)
- * North Attleboro, Massachusetts (pop 29,000)
- * Deland, Florida (pop 27,000)

- * Staunton, Virginia (pop 24,000)
- * Pottstown, Pennsylvania (pop 22,000)
- * North Baldwin, Alabama (pop 21,000)
- * Plantsburgh, New York (pop 20,000)
- * Eustis, Florida (pop 19,000)
- * Arcata, California (pop 17,000)
- * Durango, Colorado (pop 17,000)
- * Clarksburg, West Virginia (pop 17,000)
- * Stuart, Florida (pop 16,000)
- * Longmeadow, Massachusetts (pop 16,000)
- * Shelbyville, Tennessee (pop 16,000)
- * Crowley, Louisiana (pop 15,000)
- * Sulphur Springs, Texas (pop 15,000)
- * Rutland, Vermont (pop 15,000)
- * Athol, Massachusetts (pop 12,000)
- * Hendersonville, North Carolina (pop 12,000)
- * New Baltimore, Michigan (pop 11,000)
- * Union City, Tennessee (pop 11,000)
- * Glenwood Springs, Colorado (pop 10,000)
- * Palm Beach, Florida (pop 10,000)
- * Cumberland County, Virginia (pop 10,000)

See map on next page.

US communities that voted to introduce or retain fluoridation - 2005 to 2010



City of San Jose to fluoridate all its water supplies in future

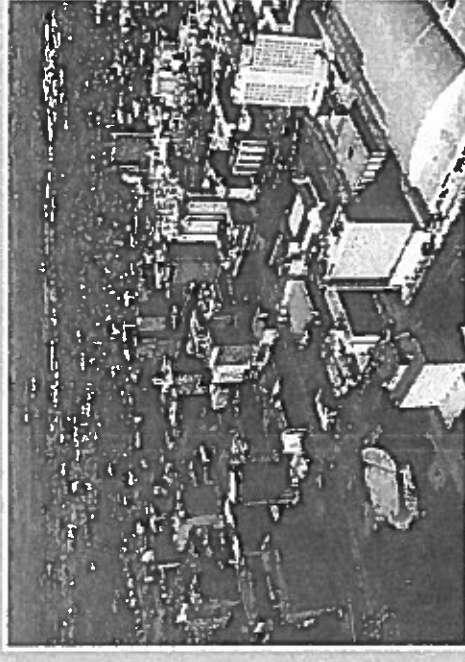
San Jose in California, the tenth largest city in the United States, is set to become wholly fluoridated, following a decision announced in November 2011 by the Santa Clara Water District Board which supplies water to 1.8 million people in and around the city.

The decision means that all of the 960,000 people who live in San Jose will in future be supplied with fluoridated water. Up to now only relatively small parts of the sprawling San Jose conurbation, located at the southern end of San Francisco Bay, have benefited from this public health measure.

Number of Americans receiving fluoridated water set to rise to around 195 million

According to figures published by the US Centers for Disease Control and Prevention (CDC), around 194 million Americans currently receive artificially fluoridated water, including the populations of 44 out of the 50 largest US cities. In addition, four of the 50 largest cities receive water that is naturally fluoridated to the optimum level for dental health.

The Santa Clara Water Board decision to fluoridate the whole of San Jose city will push the total number of Americans served by artificial water fluoridation to a record high of 195 million.

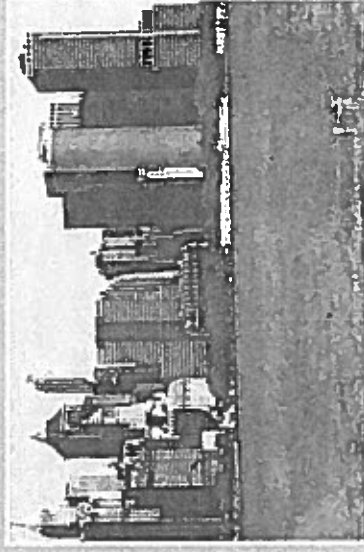


San Jose, California, the latest major US city where it has been decided to fluoridate all local water supplies

Major US cities with water fluoridation schemes in operation
Major cities such as New York, Los Angeles, Chicago, Washington DC, Philadelphia, Houston, Dallas, Phoenix, Boston, Memphis, Atlanta, Miami, Seattle, Las Vegas, San Francisco and San Diego are all already fluoridated. Many of them implemented fluoridation schemes in the 1950s and 60s, although San Diego was not fully fluoridated until 2011.

Anyone from Europe who is travelling to the United States for work or pleasure, or indeed who is emigrating permanently to live there, is likely to find that fluoridated water will be supplied to their home and business. For people connected to community water supply systems, fluoridation in the US is the rule, not the exception.

A statement by the US Centers for Disease Control and Prevention (CDC) describes water fluoridation as "one of the ten great public health achievements of the 20th century".



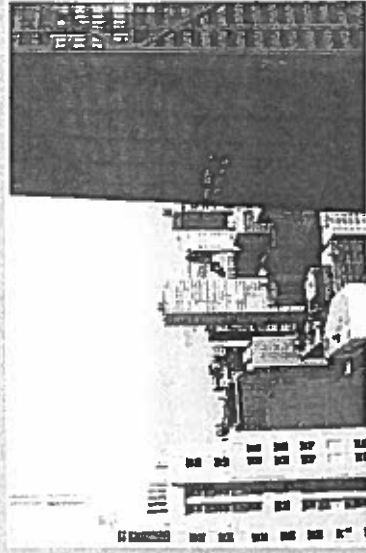
New York - fluoridated since 1965



Los Angeles - fluoridated since 1999



Washington - fluoridated since 1952



Chicago - fluoridated since 1956

Fluoridation News

Phoenix and Milwaukee to continue to fluoridate their water supplies

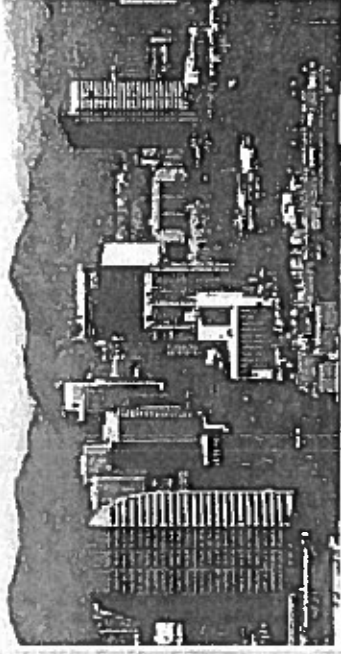
Two major US cities with fluoridation schemes - Phoenix and Milwaukee - have decided to continue to add fluoride to their water supplies.

In September 2012, a Phoenix city council sub-committee affirmed its existing policy of fluoridating the drinking water supplied to around 1.4 million residents. The city has been benefiting from fluoridation since 1990.

President of the Arizona Dental Association, Dr Gary Jones, said the sub-committee members should be applauded for making their decision based on the best science.

Dr. Donald Altman, Arizona Dental Association member and Phoenix public health dentist, told the subcommittee that many studies on community water fluoridation had shown that it is a safe, cost-effective and healthy way to prevent dental decay in children and adults.

Other experts who addressed the subcommittee in support of fluoridation included Will Humble, director of the Arizona Department of Health Services; Dr. Howard Pollick, clinical professor at the University of California San Francisco, consultant to the National Fluoridation Advisory Committee and an American Dental Association spokesperson on fluoridation; and Dr. Jack Dillenberg, dean of the Arizona School of Dentistry and Oral Health in Mesa.



Phoenix, Arizona

Commenting after the decision had been taken, council member Thelda Williams said the medical community had provided sufficient evidence to show that adding fluoride to water has a public health benefit.

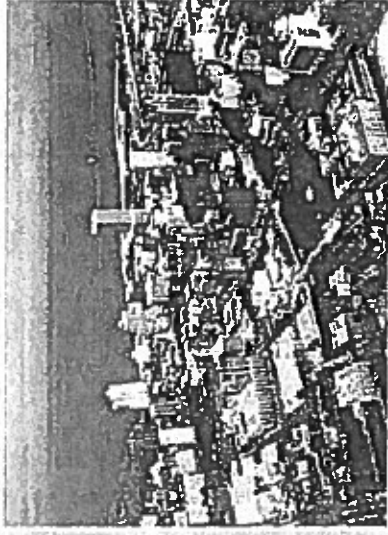
Sharon Zastrow, from the American Dental Hygienists' Association, said: "Phoenix is a city with a large, socio-economically challenged population that has limited or no access to dental care. Fluoridated water offers some protection in early childhood tooth development to strengthen tooth enamel, and studies show that fluoridated water does prevent caries."

She added: "With high sugar food and drink choices being the most economical choice for those living below the poverty level, any protection that city government can provide its citizens in the prevention of tooth decay is a 'win-win'."

In July, 2012 Milwaukee city council also voted to continue with fluoridation. Welcoming the decision, the director of the Wisconsin Dental Association Mark Paget said: "Over the last 65 years, water fluoridation has proven to be safe, effective and economical - truly one of public health's greatest achievements."

In reaching its decision, Milwaukee city council opted to reduce the target fluoride concentration in its water supply from 1.1 parts per million to 0.7 parts per million, reflecting proposals issued for consultation in January 2011 by the US Department of Health and Human Services.

Whilst no firm decisions have yet been announced by the Department, and whilst the federal recommendations on fluoride levels are for guidance only rather than mandatory regulations, a Milwaukee councillor who had originally argued in favour of stopping the local scheme altogether changed his mind and, with the backing of the rest of the council, proposed adopting the 0.7 ppm concentration for the city.



Milwaukee, Wisconsin

March 2013

Fluoridation News

Largest non-fluoridated US county votes by a 6 to 1 majority to recommence fluoridation

A major fluoridation scheme serving Pinellas County on the west coast of Florida came back into operation on 1st March 2013. It means that more than 700,000 people living in St Petersburg, Clearwater, Largo and other cities will once again be benefiting from this public health measure.

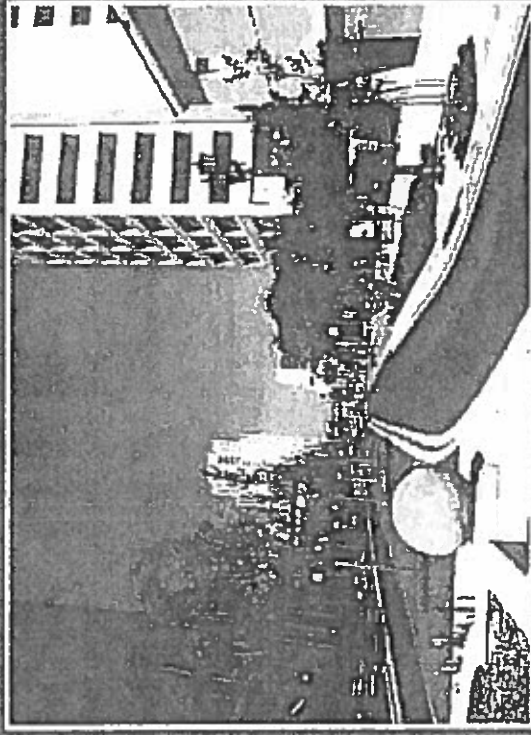
A scheme that had originally been started in 2004 was stopped in 2011 after two newly elected commissioners, who had not been involved in the decision to introduce fluoridation, successfully pushed for it to be terminated.

However, a public backlash at the loss of fluoridation led to the two anti-fluoride commissioners being ousted in the November 2012 elections and replaced by pro-fluoride representatives.

When fluoridation was raised again at the Pinellas County board, its commissioners voted by a massive 6 to 1 majority in favour of reintroducing the scheme.

Between 2011 and 2013, Pinellas County had briefly been the largest US county – in population terms – without a fluoridation scheme. Now it has rejoined the vast majority of major US conurbations by once again supplying fluoridated water to its residents.

Whilst the 2012 election was about a wide range of issues, during the campaign the two commissioners elected in place of anti-fluoride incumbents had cited the need to reintroduce fluoridation as one of their campaign priorities. Local media reports suggest that their pro-fluoride stance helped to get them elected.

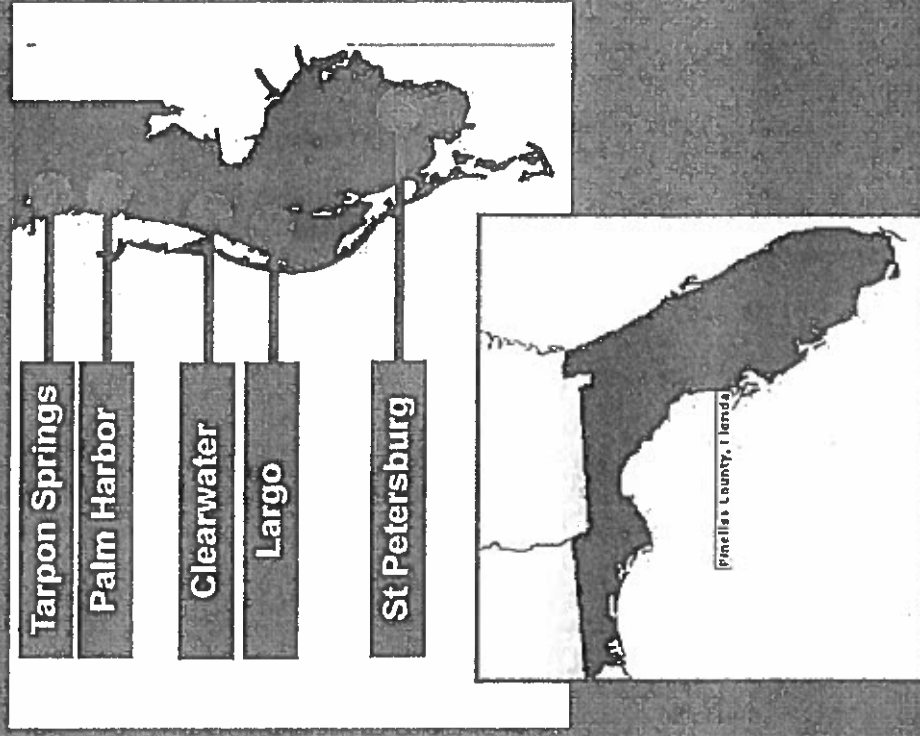


Clearwater, Florida, one of the cities in Pinellas County where water fluoridation recommenced on 1st March 2013

Fluoridation News

Since the election, no time has been lost in reintroducing fluoridation to this part of Florida. A decisive vote was held on 27th November 2012 and, according to a recent news release from Pinellas County Utilities, fluoridated water is now flowing from residents' taps.

The Pinellas County scheme is good value for money, costing just 25 cents per person per year to run.



Fluoridation News

Canada's largest city votes to retain fluoridation and the dental benefits

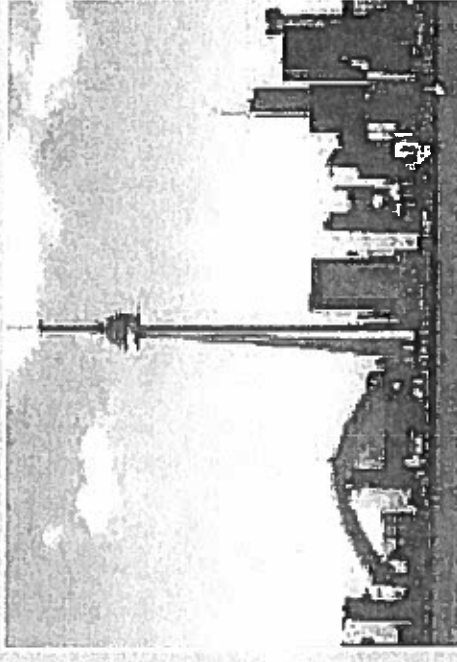
Canada's largest city, Toronto, has opted to continue adding fluoride to its water supply to help prevent tooth decay. The city has been fluoridating its water continuously since 1963.

In April 2011 the city's Board of Health voted to maintain the fluoridation scheme in the light of convincing scientific evidence of its efficacy and safety. The population of some 2.5 million people will therefore continue to benefit from this important public health initiative.

Around 76% of the population of Ontario, in which Toronto is located, are supplied with fluoridated water, making the province the most extensively fluoridated part of Canada.

A paper presented to the Toronto Health Board by its medical officer of health, Dr David McKeown, compared children's dental health in mainly fluoridated Ontario and mainly non-fluoridated Quebec, where only 7% of people drink water with added fluoride.

Dr McKeown pointed out that, according to a 2007-2009 oral health survey, Quebec six-year olds had 27% more tooth decay than their counterparts in Ontario. In the 12-19 year age range, Quebec children had 20% more decay than those in Ontario.



Canadian oral health survey, 2007-09

Six-year old children in Quebec had 27% more tooth decay than those in Ontario, which includes Toronto (pictured above). Only 7% of Quebec residents are supplied with optimally fluoridated water, compared with 76% in Ontario.

A 2010 survey found that adults in British Columbia, where only 4% of the population has access to fluoridated water, had between 29% and 44% more tooth decay than those in Ontario.



In conclusion, Dr McKeown said: "Based on the weight of credible scientific evidence for the safety and effectiveness of water fluoridation and the estimated increase in financial costs to maintain current levels of oral health in Toronto residents in the absence of water fluoridation, the Medical Officer of Health recommends that the Toronto Board of Health reaffirm its position to continue fluoridating Toronto water at current levels."

Comparing adults' dental health in British Columbia and Ontario - 2010 figures

Adults in British Columbia, where only 4% of the population has access to fluoridated water, had between 29% and 44% more tooth decay than those in Ontario, where around three quarters of residents benefit from water fluoridation schemes.

Fluoridation coverage now up to 95% in New South Wales

Between 2004 and 2012 the proportion of New South Wales residents receiving fluoridated water has risen from around 90% to 95%.

This followed a State-wide drive to oral health inequalities between people living in the largely fluoridated urban areas and those in non-fluoridated rural areas. During that period, a total of 16 local councils went ahead with new fluoridation schemes.

Just under 7 million people now benefiting in the State

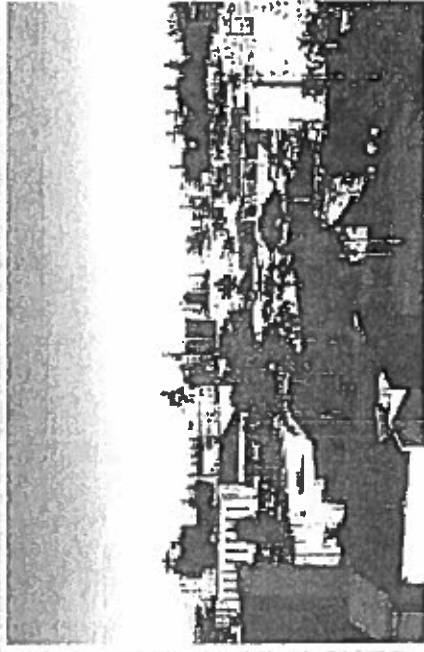
The expansion of water fluoridation coverage means that some 6.9 million people in New South Wales are now benefiting from this public health measure. The largest city and State capital, Sydney (population 4.6 million) has been supplied with fluoridated water since 1968.

The latest new scheme came into operation in February 2012 in the Port Macquarie-Hastings area between Sydney and Brisbane on Australia's east coast.

Plans to extend coverage further to 98% of the NSW population

There are plans in place to extend the State's fluoridation coverage even further in its more remote rural areas and, ultimately, to reach a total of 98% of the New South Wales population.

continued



Port Macquarie, New South Wales, where a new fluoridation scheme was introduced in February 2012 to help extend the dental benefits to more people in the State.

Polls showed over 87% support across the State

Over recent years the New South Wales Health Department has conducted surveys to ascertain levels of public support for water fluoridation. Figures from its polling in 2008 showed that over 87.4% of people questioned across the State were in favour.

As part of the expansion programme, additional surveys were conducted in 12 rural areas to find out whether local people wanted to see fluoridation schemes introduced. Overall, 70% of those interviewed said they agreed with adding fluoride to their water supply to prevent tooth decay.

NSW Health Department opinion survey, 2008

The 2008 State-wide poll found that 87.4% of those questioned were in favour of water fluoridation.



Sydney, the largest city in Australia with a population of 4.6 million, has had fluoridated water supplies since 1968.

Fluoridation News

Fluoridation coverage rockets in Queensland from less than 5% to 92%

In recent years, the biggest expansion of fluoridation schemes in Australia has taken place in Queensland, with population coverage having rocketed from less than 5% in 2002 to 92% by the end of 2011.

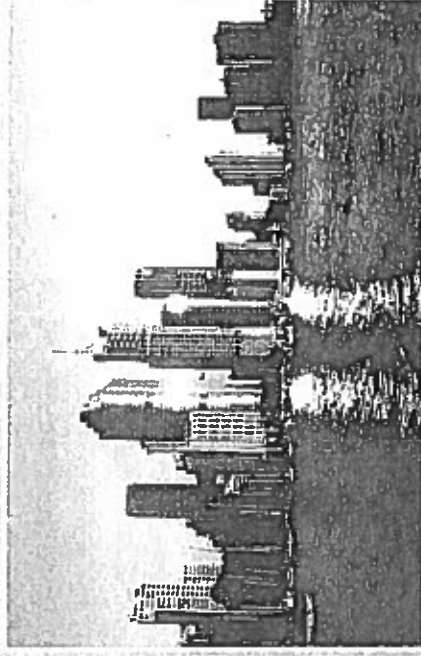
This is all part of an ambitious programme embarked upon by the Queensland government in 2008 with the aim of supplying fluoridated water to 95% of the State's residents by 2012.

Under the Water Fluoridation Act 2008, all public water supplies in the State must be fluoridated unless the naturally occurring fluoride in the water is at the required level.

By the end of 2011, a significant proportion of the Queensland government's fluoridation programme had been implemented, with fluoridation plants having been brought into operation to serve Brisbane, Cairns, Rockhampton and large parts of the Gold Coast and Sunshine Coast.

Every major Australian city now fluoridated

With the Queensland State capital Brisbane now fluoridated, it means every major Australian city is now benefiting from this public health measure. The first cities to introduce fluoridation schemes in Australia were Canberra and Hobart in 1964, followed by Sydney and Perth in 1968, Adelaide in 1971, Darwin in 1972 and Melbourne in 1977.



Brisbane, the capital of Queensland, has now joined all the other major cities of Australia, including Sydney, Melbourne, Adelaide, Perth, Canberra and Hobart, by implementing a water fluoridation scheme to help reduce tooth decay.

Up to 2008, Queensland was lagging a long way behind the rest of the country in the implementation of water fluoridation to prevent tooth decay. As a result, children's oral health in the State was measurably worse than in the rest of the country.

Pre-2008 comparisons of Queensland children with those from other States

In the national child dental health survey of 2006, children from mainly non-fluoridated Queensland had significantly more tooth decay than their counterparts in mainly fluoridated States such as Western Australia, South Australia and Tasmania.

Queensland 5 and 6-year olds, for example, had 53% more decayed, missing and filled teeth than those in Western Australia and 38% more teeth affected than those in South Australia and Tasmania.

As many as 63% of Queensland children in this age group had decay in their deciduous teeth, compared with 41% in Western Australia, 45% in South Australia and 48% in Tasmania.

A similar pattern was found among 12-year olds. Queensland children had 75% more decayed, missing and filled teeth than those in Western Australia, 53% more than 12-year olds in South Australia and 27% more than those in Tasmania.

Whilst 52% of Queensland 12-year olds had decay in their permanent teeth, the figures for Western Australia, South Australia and Tasmania were 38%, 42% and 44% respectively.

If past experience of water fluoridation around the world is repeated in Australia, within the next five years the dental health inequalities between Queensland and fluoridated parts of the country should have begun to disappear.

Australian child dental health survey, 2006:

Average numbers of decayed, missing and filled teeth per 100 children aged 5 and 6:

Queensland:	253 teeth affected per 100 children
South Australia:	183 teeth affected per 100 children
Tasmania:	183 teeth affected per 100 children
Western Australia:	165 teeth affected per 100 children

Percentage of 5 and 6 year olds with experience of tooth decay:

Queensland:	63% with experience of decay
Tasmania:	48% with experience of decay
South Australia:	45% with experience of decay
Western Australia:	41% with experience of decay

Australian child dental health survey, 2006:

Average numbers of decayed, missing and filled teeth per 100 children aged 12:

Queensland:	144 teeth affected per 100 children
Tasmania:	113 teeth affected per 100 children
South Australia:	94 teeth affected per 100 children
Western Australia:	82 teeth affected per 100 children

Percentage of 12-year olds with experience of tooth decay:

Queensland:	52% with experience of decay
Tasmania:	44% with experience of decay
South Australia:	42% with experience of decay
Western Australia:	38% with experience of decay

Fluoridation coverage now up to 90% in Victoria

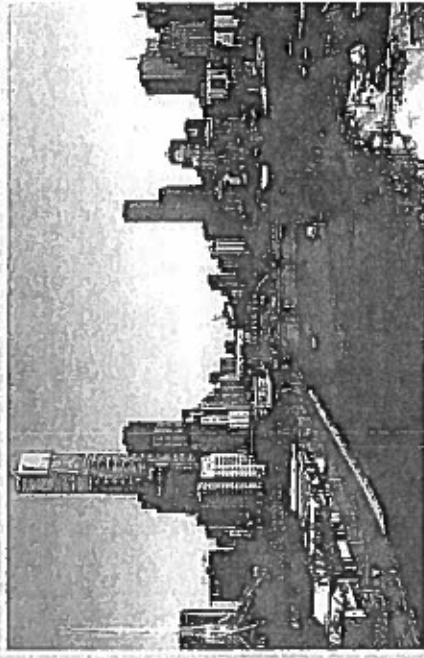
Fluoridation coverage has also been expanding in the Australian State of Victoria over recent years. Since 2006, the following communities have all had additional fluoride introduced to their water supplies to help reduce tooth decay:

Geelong (pop 161,000)
Ballarat (pop 96,000)
Warrnambool (pop 34,000)
Mildura (pop 30,000)
Wodonga (pop 30,000)
Traralgon (pop 22,000)
Wangaratta (pop 17,000)
Moe (pop 15,000)
Horsham (pop 14,000)
Morwell (pop 13,000)
Sale (pop 13,000)
Warragul (pop 13,000)
Bairnsdale (pop 11,000)

Colac (pop 11,000)
Swan Hill (pop 10,000)
Benalla (pop 9,000)
Hamilton (pop 9,000)
Castlemaine (pop 7,000)
Phillip Island (pop 7,000)
Seymour (pop 6,000)
Yarrawonga (pop 6,000)
Kerang (pop 4,000)
Lakes Entrance (pop 4,000)
Kyabram (pop 2,000)
Robinvale (pop 2,000)

See map on next page

continued



Melbourne, the second largest city in Australia with a population of 4.1 million, has had fluoridated water supplies since 1977. Around 90% of the State's population now receives optimally fluoridated water.

When natural fluoridation is taken into account, around 90% of population in the State are now receiving optimally fluoridated water. It means that number of people benefiting from this public health measure has now risen to just under 5 million. The largest city and State capital, Melbourne (population 4 million) has been supplied with fluoridated water since 1977.

In a statement issued in 2010 the Victorian government said: "The government is committed to ensuring Victorians are not disadvantaged by where they live in terms of receiving the proven health benefits of water fluoridation. A programme is under way to extend water fluoridation to those parts of Victoria which do not currently have access to this important and effective public health measure."

