



## **STAFF REPORT MUNICIPALITY OF WAWA**

**Maury O'Neill, CAO-Clerk**

<b>Prepared By: Maury O'Neill</b>	<b>Report No.: CAO 2025-03</b>
<b>Agenda Date: March 18, 2025</b>	<b>File No. C11</b>

### **SUBJECT**

Council options to remove fluoride from the municipal water supply.

### **PURPOSE**

In response to a request received by Council from a resident, the purpose of this report is to provide Council with an overview of its options under the Fluoridation Act, 1990, the Municipal Act, 2001, and the Municipal Elections Act, 1996, to consider the removal of fluoride from the municipal drinking water supply.

### **BACKGROUND – OPTIONS AVAILABLE TO COUNCIL**

Fluoridation of municipal drinking water is regulated under the Fluoridation Act, R.S.O. 1990, c. F.22.

In 1985, a plebiscite was held that demonstrated that the community was in favour of adding fluoride to the municipal water supply and the authorizing by-law was passed by Council in 1986, being by-law 425-86.

Municipalities like Wawa that have previously introduced fluoride into the water supply have a defined process under the Act to remove it, which typically requires public consultation and, in some cases, a referendum.

#### **1. Fluoridation Act, R.S.O. 1990, c. F.22**

Under the Fluoridation Act, municipalities that wish to remove fluoride from the drinking water supply must follow a similar process to that used when fluoride was introduced. The key options include:

- **Initiating a By-law Repeal Process:** Council may pass a by-law to remove fluoride from the water supply; however, under Section 3(1) of the Act, this decision may require approval through a municipal referendum.
- **Holding a Public Referendum:** If fluoride was originally introduced via a plebiscite, the Act requires that its removal be subject to a similar referendum, as per Section 3(2).

Since Wawa added fluoride based on a plebiscite in 1985, it appears it must hold a similar plebiscite or referendum to remove it from the water supply.

### **Public Referendum/Plebiscite**

Before passing a by-law to remove fluoride, Council may submit to the electors a question that must be worded as follows:

#### **Are you in favour of the discontinuance of the fluoridation of the public water supply of this municipality?**

If the question receives a yes vote of a majority of the electors who vote on the question, Council shall pass the by-law. Where the question does not receive the affirmative vote of a majority of the electors who vote on the question, Council shall not pass the by-law until the question has again been submitted to the electors and it has received the affirmative vote of a majority of the electors who vote on it. (R.S.O. 1990, c. F.22, s. 3 (2)).

Council may submit a question under this Act to the electors at any time. If the question is to be added to the next Election as a referendum, it must be decided upon and verified by the Clerk before May 2026 (*tbc*).

### **Petition**

Upon the presentation of a petition requesting that a question under this Act be submitted to the electors, signed by at least 10 per cent of the electors in the municipality, Council shall before or at the next municipal election submit the question to the electors, but, if a petition is presented in the month of November or December in any year, it shall be deemed to be presented in the month of February next following. (R.S.O. 1990, c. F.22, s. 4 (2)).

A petition shall be deemed to be presented when it is lodged with the clerk of the municipality, and the sufficiency of the petition shall be determined by the clerk and his or her certificate as to its sufficiency is conclusive for all purposes. R.S.O. 1990, c. F.22, s. 4 (3).

## **2. Municipal Elections Act, 1996, S.O. 2001, c. 32**

A referendum on the fluoridation issue could be held in conjunction with the next municipal election under the Municipal Elections Act, 1996, which would be next year on Monday, October 26, 2026.

Under the Act, considerations include:

- **Council Resolution:** Council may pass a resolution to place a fluoridation question on the ballot.
- **Petition Process:** A petition from electors may also trigger a referendum if it meets the required thresholds under the Act.
- **Binding Nature:** Under Section 8.1(4) of the Act, a referendum result is binding if at least 50% of eligible electors vote.

### 3. Municipal Act, 2001, S.O. 2001, c. 25

The Municipal Act, 2001 provides general legislative authority for municipalities to govern their own affairs, including public health and water treatment policies. Relevant considerations include:

- **Council's Authority to Pass By-laws:** Council can adopt a by-law under its general authority to manage municipal services and infrastructure.
- **Public Consultation Requirement:** Although the Act does not mandate a referendum, Council may choose to hold public consultations or hearings before deciding.
- **Legal and Financial Implications:** Council should consider potential challenges, including opposition from public health authorities and possible legal action from stakeholders.

### 4. Financial, Legal and Other Considerations

There are many issues for Council and the community to consider prior to making a decision about removing fluoride from the municipal drinking water.

This purpose of this report is not to examine the costs or benefits of leaving fluoride in the drinking water, but instead refers Council to the Fluoride Report it received in September 2023 from the Medical Officer of the Algoma Health Unit, attached as Appendix A.

In the report, the Medical Officer of Health shared that water fluoridation is the "single most effective public health measure to prevent tooth decay."

Other considerations should Council receive a request from 10% of the electorate and/or decide to pass a Resolution to add the fluoridation question to a referendum, include:

- **Cost of a Referendum:** Conducting a plebiscite or special vote could result in significant costs.
- **Potential Legal Challenges:** Removal of fluoride may prompt legal action from public health authorities or residents concerned about oral health impacts.
- **Operational Adjustments:** Changes to water treatment infrastructure and staff training may be required if fluoridation is discontinued.

Projected costs for a referendum outside an election is roughly estimated to cost about \$20,000 to \$30,000 which includes advertising, Intelivote eServices (includes creation, production, supplies for producing and mailing voter instruction letter, postage, internet and telephone voting set up) and considerable staff time, particularly the Clerk. Costs for a referendum with an election would be roughly estimated at \$10,000 to \$20,000, plus staff time. These estimated costs would need to be researched and confirmed.

The costs to remove the fluoride and equipment at the water Treatment Plant are unknown at this time and would require an engineer's estimate. There would be some costs savings annually of about \$5,000.

## OPTIONS AND NEXT STEPS

The following options and next steps are available for Council's consideration:

1. Advise the resident that per the Fluoridation Act, he must submit a petition to the Clerk requesting that a question under this Act be submitted to the electors, signed by at least 10 per cent of the electors in the municipality.
2. Council consider a Resolution to direct staff to add a fluoridation question at the next municipal election in October 2026.
3. Request a legal opinion on the implications of repealing fluoridation from the municipal water supply.
4. Request the Medical Officer of Health to provide input and a recommendation on removing fluoridation.
5. Direct staff to provide a report to Council on the benefits and costs of water fluoridation.

**RECOMMENDATION**

Council has received a request from a local resident to include a referendum on fluoridation during the next municipal election in October 2026. However, a single request does not indicate broader community support for holding a plebiscite. Given the additional costs and staff resources required for a referendum, it is important to ensure there is significant public interest before proceeding.

It is therefore recommended that Council approve the following:

**Petition Requirement: THAT** Council advise the resident that, under the Fluoridation Act, a petition requesting a referendum on fluoridation must be submitted to the Clerk. This petition must be signed by at least 10% of electors in the municipality and submitted before April 2026 for verification.

**Receipt of Report and Direction: THAT** Council receive this report for information and provide direction to staff on the preferred approach for responding to the citizen's request.

Respectfully submitted,

Maury O'Neill  
CAO-Clerk

# Community Water Fluoridation

Presenter: Natalie Carriere, Registered Dental Hygienist

Date: September 19, 2023



# Overview

- What is fluoride?
- Community water fluoridation (CWF)
- How does fluoride impact dental health?
- Benefits of CWF
- CWF and equity
- The economics of CWF: Return On Investment

# APH Strategic Directions



Advance the priority public health needs of Algoma's diverse communities.



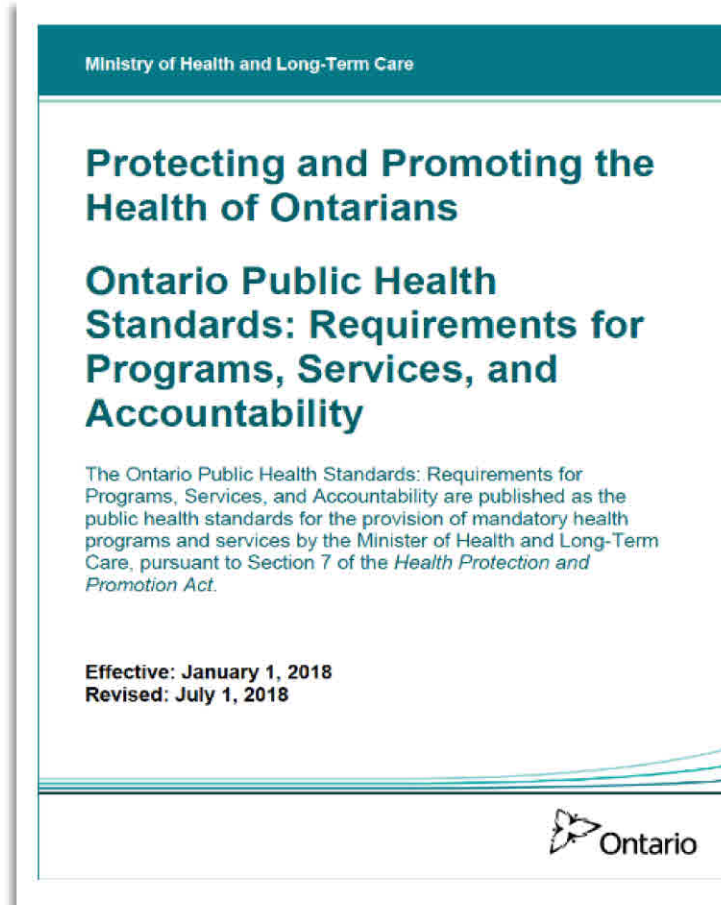
Improve the impact and effectiveness of Algoma Public Health programs.



Grow and celebrate an organizational culture of learning, innovation, and continuous improvement.



# Ontario Public Health Standards



## Program Standards

### Chronic Disease Prevention and Well-Being

#### Goal

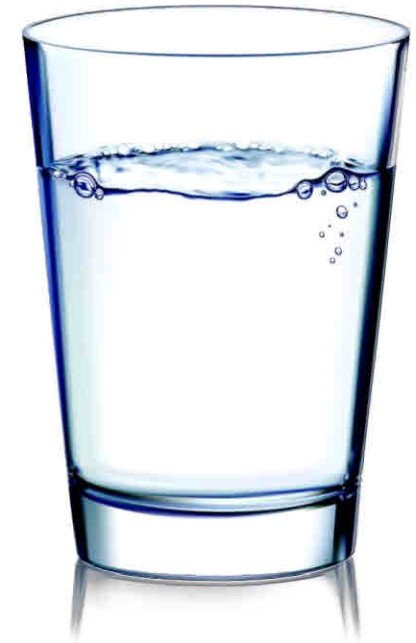
To reduce the burden of chronic diseases of public health importance<sup>6</sup> and improve well-being.

#### Program Outcomes

- The board of health is aware of and uses data to influence and inform the development of local healthy public policy and its programs and services for the prevention of chronic diseases.
- Board of health programs and services are designed to address the identified needs of the community, including priority populations, associated with the prevention of chronic diseases.
- Priority populations and health inequities related to chronic diseases have been identified and relevant data have been communicated to community partners.
- There is a reduction in population health inequities related to chronic diseases.
- Community partners are aware of healthy behaviours associated with the prevention of chronic diseases.
- Community partners have knowledge of and increased capacity to act on the factors associated with the prevention of chronic diseases and promotion of well-being, including healthy living behaviours, healthy public policy, and creating supportive environments.
- Community partners, policy-makers, and the public, including priority populations, are meaningfully engaged in the planning, implementation, development and evaluation of programs and services for the prevention of chronic diseases.

# What is Fluoride?

- Fluoride exists naturally in the earth in phosphate rock, usually in too low levels to prevent tooth decay<sup>1</sup>
- The dental effects were discovered in the 1930s<sup>1</sup>
- Brantford, Ontario was one of the first test cities in 1945<sup>2</sup>
- 78 years of research on safety and effectiveness



# Community Water Fluoridation (CWF)



Works by exposing the teeth to a constant low level of fluoride; Fluoride molecules create stronger teeth by hardening tooth enamel, contributing to tooth surface re-mineralization and deterring oral bacteria<sup>1</sup>



Fluoridation of community water supplies is the single most effective public health measure to prevent tooth decay<sup>2</sup>



Centers for Disease Control and Prevention has proclaimed community water fluoridation... one of ten great public health achievements of the 20th century<sup>2</sup>

1. Public Health Association of Canada (2022) The state of community water fluoridation across Canada. <https://www.canada.ca/en/public-health/services/publications/healthy-living/community-water-fluoridation-across-canada.html>

2. American Dental Association. Fluoridation facts: American Dental Association; 2019. Available from: <https://www.ada.org/en/resources/community-initiatives/fluoride-in-water/fluoridation-facts>.

# How much Fluoride is going in the water?

- Monitored and controlled at local site
- Level to optimize dental benefits and avoid adverse effects
- Meets all quality and purity standards for water additives: NSF International, American Water Works Association, ANSI, etc.<sup>1</sup>

## Maximum Acceptable Concentration

- 1.5 mg/L

## Optimal Drinking water level

- 0.7-1.2 mg/L

## Ontario range (2017)

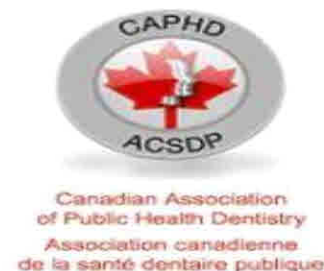
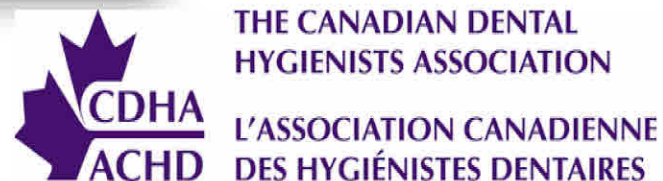
- 0.6-0.8 mg/L<sup>2</sup>

1. Centres for Disease Control (2023) Fluoridation: FAQs. <https://www.cdc.gov/fluoridation/faqs/public-service-recommendations.html>

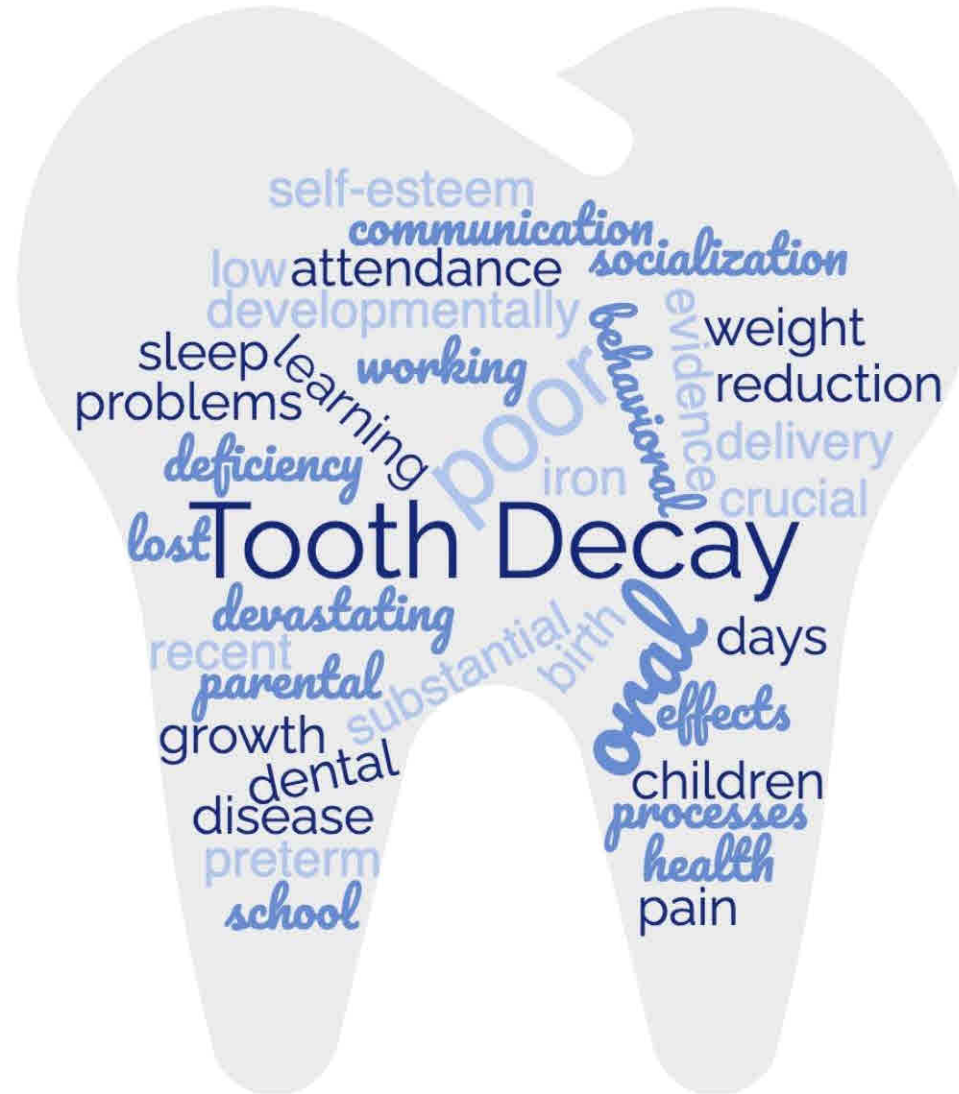
2. Health Canada (2017) Fluoride. <https://www.canada.ca/content/dam/canada/health-canada/migration/healthy-canadians/publications/healthy-living-vie-saine/water-fluoride-fluorure-eau/alt/water-fluoride-fluorure-eau-eng.pdf>



## Organizations supporting community water fluoridation



# The Problem of Tooth Decay



1. Canadian Paediatric Society (2022) Oral health care for children: a call to action. [Oral health care for children – a call for action | Canadian Paediatric Society \(cps.ca\)](https://cps.ca/en/about/press-releases/2022-05-10-oral-health-care-for-children-a-call-to-action)

2. National Institute of dental and craniofacial research (US). (2021) Oral health in America: advances and challenges.

<https://www.ncbi.nlm.nih.gov/books/NBK578294/#:~:text=Tooth%20loss%20affects%20the%20ability,often%20worsen%20as%20people%20age.>



# How does Fluoride Impact Health?



“Studies prove water fluoridation continues to be effective in reducing tooth decay by more than **25%** in children and adults, even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste.”

# What is the impact of CWF in Wawa?

Caries free rate in  
North Algoma

**61%**

Percentage of JK/SK students who received dental screening during the 2018-19 school year and presented with no history or current caries.

Population/dentist  
ratio in Canada

**1:1,622**

For every dentist in Canada there are **1,622** people.

North Algoma  
population/dentist ratio

**1:3,976**

For every dentist in Algoma there are **3,976** people.

Rural and remote areas across Canada have proportionally fewer dentists than urban areas, making access to oral care in these regions more challenging.

# Benefits of CWF: Health Equity



This population-based preventive intervention contributes to oral health equity by overcoming common social determinants of health including age, education, income, and access to professional dental care.

# Benefits of CWF: Health Equity

- **35%** of dental services are paid out-of-pocket
- **Lower income Ontarians** are the most likely to report mouth conditions that cause them to avoid social interactions such as conversation, laughing or smiling.
- Ontarians with **lower income, less education**, ...those with **no insurance** and those **over the age of 65**, are more likely to only visit the dentist in cases of emergency.



# Benefits of CWF: Health Equity

- Among Ontarians who did not visit a dentist ... **one in five** cited cost as a barrier.
- Approximately **half of Ontarians aged 12 years and over** reported having oral or facial pain, or discomfort, in the previous month.
- ...among older Ontarians and those with **lower income and less education**, there is a significant drop in dental coverage rates (36%, 40%, and 41% respectively). [King 2012]

# Early Tooth Decay and Child Surgery

Day surgery rates:



Were 8.6 times as high for children from neighbourhoods with high [Indigenous] populations.



Were 3.9 times as high for children from the least affluent neighbourhoods.



Were 3.1 times as high for children from rural neighbourhoods.



# Windsor reinstates CWF

Windsor

## Windsor to put fluoride back into the water after council vote



Council voted 8-3 in 2013 to remove it, and 8-3 in 2018 to put it back

CBC News - Posted: Dec 14, 2018 10:08 PM EST | Last Updated: December 18, 2018



The percentage of children with tooth decay or requiring urgent care increased by **51%** [after ending CWF] in 2016-17 compared to during CWF in 2011-12.

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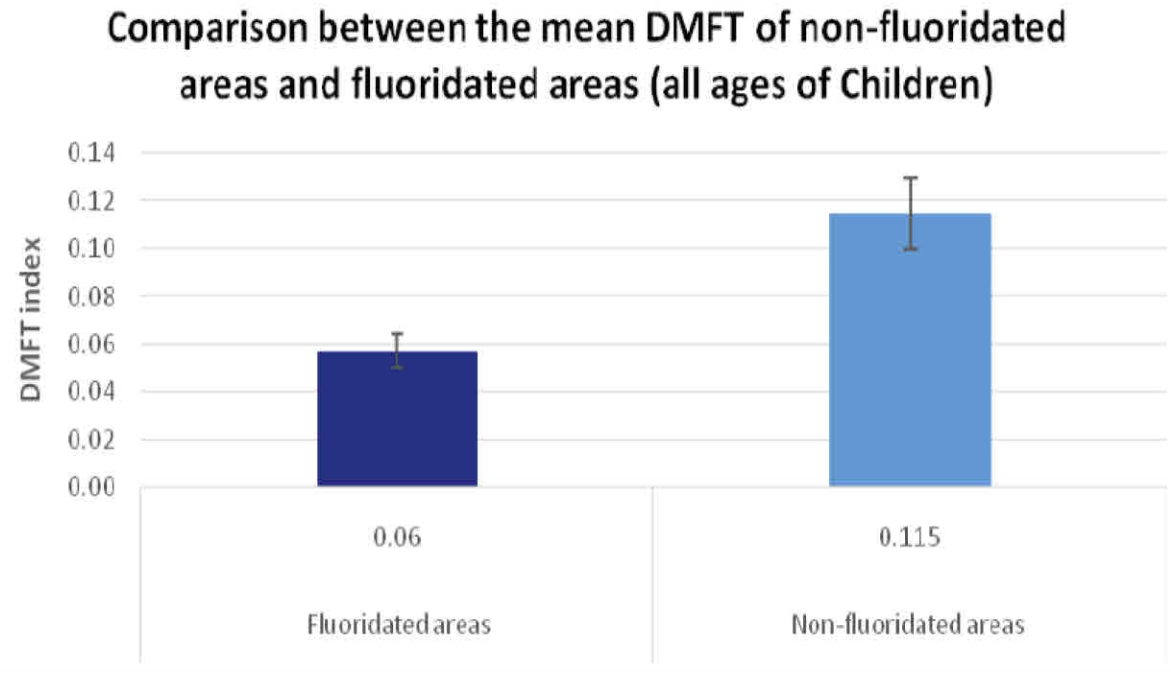
... requests for dental assistance at the organization have gone up by **300%** from 2014 to 2018.

*Joyce Zuk,  
Executive Director of Family Services  
Windsor-Essex*

# Montreal-area Comparison of Water Treatment Areas

Eight water treatment areas in the Montreal area do not use CWF, and two do.

This graph compares DMFT:  
“Decayed Missing Filled Teeth Index”  
for children up to age 18.



**Figure 7:** Comparison of means of children’s DMFT in all age groups, between the fluoridated (dark navy blue) and non-fluoridated areas, there is a highly significant increase in DMFT scores for non-fluoridated areas (light blue). Note: The I-bars on the graphs show  $\pm$  SD’s [5]. The comparison within all age groups of children in the fluoridated areas revealed no significant difference. See figure 8A and 8B.

# The Economics of CWF: Return on Investment (ROI)



Every **\$1** invested in a prevention measure like community water fluoridation at the optimal level can yield between **\$5.00** and **\$93.00** of savings per person in dental treatment costs.



# Oral health services programs



Oral screening,  
assessment and  
surveillance



Healthy Smiles  
Ontario



Ontario Seniors  
Dental Care  
Program



Health  
Promotion  
activities

# Key messages

- The leading health experts endorse community water fluoridation as a safe, effective way to reduce cavities
- CWF is an effective public measure that reduces inequalities in health
- CWF helps to contain the costs of health care in Ontario
- CWF benefits all residents in a community





*Questions?*

Chi-Miigwech. Merci. Thank You.

PUBLIC HEALTH