Dear Warden Bain, Deputy Warden Antaya, Mayor DiCarlo, Deputy Mayor DiPasquale, Mayor McDermott, Deputy Mayor Meloche, Mayor Santos, Deputy Mayor Queen, Deputy Mayor Fazio, Deputy Mayor Bondy, Mayor Paterson, Deputy Mayor MacDonald, Mayor McNamara, and Deputy Mayor Bachetti,

In this email I would address a very serious claim being made by the anti-fluoridation camp. That claim is that community water fluoridation (CWF) is causing lowered IQ in babies. They are targeting pregnant mothers with this "campaign" of theirs. This should be considered practicing medicine without a license. They have no credible scientific evidence of this whatsoever.

# A. The National Toxicology Program-fluoride at 0.7ppm up to 4ppm = no IQ changes:

Opponents to CWF have claimed that they have uncovered many animal studies which show IQ changes from fluoride. The US EPA evaluated their claims and denied their petition to cease CWF.

The National Toxicology Program looked at previous animal studies and decided to design a study of rats with varying levels of fluoride in their food and their water. The opponents were <u>thrilled</u> and claimed that this would be the end of water fluoridation.

However, the well designed and controlled <u>study</u> demonstrated that rats with regular food (contains fluoride) or low fluoride food, along with water levels simulating CWF, resulted in no changes. Additionally, the same protocol using the two differing foods along with high fluoride water at levels of the EPA Maximum Contaminant Level of 4ppm, resulted in absolutely no changes in any of the 9 areas that they were evaluating.

The opponents have been totally silent over this study. It has proven that fluoride at 0.7ppm and 4ppm does not cause any IQ changes whatsoever.

# B. Community Water Fluoridation and IQ:

Follows is a study which confirms that CWF has zero effect on IQ, and a research paper that showed natural levels of fluoride in the water were beneficial for dental health, the labor market, and has no effect on IQ.

### 1. Study:

Community Water Fluoridation and Intelligence:

Prospective Study in New Zealand

A well conducted credible, peer reviewed study which has been published in credibly recognized scientific journal, does exist. The study is from New Zealand, a nation where CWF is common.

This <u>study</u> was conducted by Broadbent, et al, followed a cohort of nearly 1,000 people from birth through 38 years of age. It showed that CWF has absolutely no impact on IQ over the 38 years that this cohort was followed.

### Their findings:

Conclusions. These findings do not support the assertion that fluoride in the context of CWF programs is neurotoxic. Associations between very high fluoride exposure and low IQ reported in previous studies may have been affected by confounding, particularly by urban or rural status.

2. <u>Research paper</u> from two economists in Sweden. They looked at fluoride levels naturally existing in their water and outcomes:

The Effects of Fluoride In The Drinking Water<sup>a</sup> by Linuz Aggeborn<sup>b</sup> and Mattias Öhman<sup>c,</sup> October 24, 2017

# Their findings:

- We investigate and confirm the long-established positive relationship between fluoride and dental health.
- We find precisely estimated zero-effects on cognitive ability, non-cognitive ability and math test scores for fluoride levels in Swedish drinking water.
- We find that *fluoride improves later labor market outcomes*, which indicates that good dental health is a *positive factor* on the labor market. (my emphasis in italics)

# C. Salt fluoridation and IQ Claims from the Mexican Study by opponents of CWF:

You will have undoubtedly received "new" claims of harm from the opposition regarding harm to pregnant mothers and the IQ of their offspring. These claims originate from a recently released journal article by highly respected researchers from Canada, U.S., and other countries.

Here is what of one of the lead co-authors of the study, Dr. E. Angeles Martinez Meir, has said regarding CWF and fluoridated salt:

- The Mexican study is from a country where CWF is not practiced. Mexico lacks the
  infrastructure to properly fluoridate community water at optimal levels. Instead, they rely on
  fluoridated table salt in the concentration range of 150-250 ppm (parts per million, milligrams
  per litre of water).
- The health claim that Dr. Connett attempts to make is that the fluoride in the urine content in pregnant mothers in this Mexican study is in the range of non-pregnant mothers in the U.S. and Canada. We do not have those data on pregnant mothers from the U.S. and Canada. We only have data on fluoride content on non-pregnant mothers.
- No measurements of intakes of fluoride were made in the Mexican study. The participants of this study also used fluoridated toothpaste, tap water from the local water supply which contained between 0.15-1.38ppm fluoride, and from foods. The water supplies in Mexico, unlike Canada and the U.S., are not required to undergo regular testing for fluoride levels. It is conceivable that these pregnant mothers were receiving up to twice what the optimal level of fluoride is in the U.S. and Canada, 0.7ppm.
- Connett's attempts to make the quantum leap from salt fluoridation to CWF is basically an apple to oranges comparison.

Public Health Ontario has done an excellent review of this study. The document is attached below. Additionally, the American Dental Association's National Fluoridation Advisory Committee has published comments on this study.

Please do not hesitate to reach out to your local health authorities, or AFS, regarding questions or concerns that you may have. And please support the return of CWF to the City of Windsor's water system.

Respectfully,

**Johnny** 

Johnny Johnson, Jr., DMD, MS Pediatric Dentist President, American Fluoridation Society Diplomate American Board of Pediatric Dentistry

c: 727.409.1770

Web: www.AmericanFluoridationSociety.org

e: Johnny@AmericanFluoridationSociety.com

Twitter: @AFS\_Fluoride

# A coauthor shares her perspective

"As an individual, I am happy to go on the record to say that I continue to support water fluoridation.

"You can also say that if I were pregnant today I would consume fluoridated water, and that if I lived in Mexico I would limit my salt intake."

E. Angeles Martinez Mier, DDS, MSD, PhD Professor and Chair, Department of Cariology, University of Indiana School of Dentistry





# **ARTICLE REVIEW**

# Article Review on "Prenatal Fluoride Exposure and Cognitive Outcomes in Children at 4 and 6–12 Years of Age in Mexico"

Article Link

**Article Supplementary Material** 

# **Article Summary**

The article by *Bashash et al*, published in *Environmental Health Perspectives* on September 19 2017, describes a longitudinal birth cohort study that followed children from the prenatal period through to school age to assess the relationship between environmental fluoride exposures prenatally and in early life with cognitive outcomes during childhood. Fluoride exposure was assessed through urine taken from the mother during pregnancy (prenatal exposure) and from the child. Cognitive performance was assessed through standardized testing at preschool (4 years) and school age (6-12 years).

The study was conducted in Mexico City and used stored samples from cohorts set up as part of previous research studies. The environmental sources of fluoride for this population include fluoridated salt (250 ppm) and naturally occurring fluoride in drinking water (estimated range: 0.15-1.38 mg/L). Mexico City does not fluoridate their drinking water. Mothers were recruited during the first trimester of pregnancy across two birth cohort studies during the periods 1997-2001 (cohort '2A') and 2001-2006 (cohort '3'). Cohort 3 was a randomized double-blind placebo-controlled trial in which approximately half (334 out of 670 participants) of the study population received calcium supplements during pregnancy. Cohort 2A was an observational birth cohort designed to examine the influence of lead during pregnancy (327 participants).

Urine was collected from mothers up to three times during the study (once during each trimester of pregnancy) and from children at the time of their final cognitive performance assessment at 6-12 years. Many of the mothers did not provide a urinary fluoride for all trimesters. Creatinine-adjusted urinary fluoride concentrations and urinary fluoride values corrected for specific gravity were calculated for mothers and children, respectively. The authors found no correlation (p-value < 0.44) between maternal and childhood urinary fluoride concentrations. Creatinine-adjusted urinary fluoride concentrations were available for 512 mothers.

The authors measured cognitive performance at 4 years using the McCarthy Scales of Children's Abilities (measuring General Cognitive Index, GCI). Complete GCI and covariate data were available for 287 children. The authors measured cognitive performance at 6-12 years using the Wechsler Abbreviated Scale of Intelligence (measuring IQ). Complete IQ and covariate data were available for 211 children. The

authors found a significant correlation (p-value < 0.01) between standardized testing scores at preschool and school age.

The authors used linear regression, adjusting for a number of potential confounders, to examine the relationship between fluoride exposure and cognitive performance. The authors found that a 0.5mg/L increase in maternal urinary fluoride was associated with a decrease in GCI of 3.15 points (95% CI: -5.42,-0.87), and a decrease in IQ of 2.50 points (95%CI: -4.12, -0.59). The association with GCI appeared linear across the complete range of maternal exposures while there was no clear association with IQ below maternal urinary fluoride concentrations of 0.8 mg/L. The authors found that a 0.5mg/L increase in child urinary fluoride was associated with a decrease in IQ of 0.77 (95%CI: -2.53, 0.99).

The authors conclude this study by stating, 'Our findings must be confirmed in other study populations, and additional research is needed to determine how the urine fluoride concentrations measured in our study populations are related to fluoride exposures resulting from both intentional supplementation and environmental contamination.'

# **Public Health Ontario Assessment**

### **STRENGTHS**

Previous research in the area of fluoride exposure and neurological outcomes during childhood has often been limited by small sample sizes and/or ecological study designs. The study by *Bashash et al* is a considerable improvement over previous research given the large population size and the availability of individual level data to assess both exposure and outcome.

Another strength of the study design is that exposure was measured during what is perhaps the most vulnerable window of neurological development in children, the prenatal period.

This study measured fluoride exposure through a well established method that has been used in more than two dozen research papers since 2011. The study also measured cognitive performance through well established methods.

### **LIMITATIONS**

The study population was comprised of two cohorts (referred to as "Cohort 2A" and "Cohort 3") that were both recruited from hospitals in Mexico City that *serve low-to-moderate income populations*. This recruitment strategy has the potential to result in selection bias.

This study did not measure, or try to identify, environmental sources contributing to total fluoride exposure. There is no information on the contribution of drinking water and fluoridated salt to total fluoride intake, and there is also no information on other potential dietary sources of fluoride (e.g. consumption of foods high in fluoride or swallowing of toothpaste).

The study used two labs for urine analysis, and for one of these labs there was substantial data loss based on quality control criteria (305 out of 1,484 samples). This is unusually high but it is difficult to understand how this might have impacted the study results without additional details.

It is unclear why data outliers were excluded from the analysis. The authors also do not report the proportion of data that was excluded for this reason.

There was an attempt to adjust for maternal lead in this study, by measuring and adjusting for maternal bone lead levels. Bone lead is an excellent measure of long-term exposure to lead, but for a study such as this it would be preferable to have measured blood lead given that the interest is in circulating lead that would have the potential to cross the placenta and negatively affect neurological development in utero. Given the environmental levels of lead that would be present during the study period, and the well established link between lead and neurological outcomes in children, there is potential for unmeasured confounding. The study is also lacking data on other environmental exposures that could potentially confound the association between fluoride and cognitive performance, such as iodine and arsenic.

There were differences in the distribution of covariates between the two study cohorts, and the authors note that this might have resulted in potential biases. For example, participants in cohort 2A had higher mean bone lead levels (p-value 0.001) than participants in cohort 3. There were also differences between participants with and without missing data. For example, mean levels of maternal blood mercury for those included in the cognitive performance assessments were 28.5% (at age 4) and 24.9% (at age 6-12) higher compared with those who were excluded from cognitive assessments due to missing data.

Finally, the external validity (or generalizability) beyond the cohort to areas with markedly different socio-economic, cultural and environmental circumstances (e.g. Ontario) is limited.

# **Biological Plausibility**

As an observational study, the article is not able to provide insight into possible mechanisms behind the association observed. There is good evidence that low doses of non-essential elements may have adverse effects on health. A large body of evidence links relatively low level exposure to lead and methyl mercury to neurotoxicity and adverse effects on neurocognitive development at the population level. A similar body of evidence does not exist for fluoride.

The US National Academy of Sciences (NAS), in a 2006 review on fluoride in drinking water, made reference to Chinese studies reporting IQ deficits in children exposed to fluoride at 2.5 to 4 mg/L in drinking water and concluded they lacked sufficient detail to assess their quality and relevance to the US population. Reference was also made to animal studies reporting behavioural changes after administration of fluoride, although the changes were not large in magnitude. The NAS found studies on molecular, cellular and anatomical changes in the nervous system after fluoride exposure more compelling. The NAS review called for more research on the effects of fluoride on intelligence, brain chemistry and function. The current article can viewed as a part of the research effort recommended by the NAS.

Reference: National Research Council. 2006. *Fluoride in Drinking Water: A Scientific Review of EPA's Standards*. Washington, DC: The National Academies Press. https://doi.org/10.17226/11571.

# Key Messages from the Article

 This is an important area for research given the level of public concern around the use of fluoride as a public health intervention to improve dental health. This article adds to our growing knowledge in this area.

- The study is methodologically better than many others in the literature and incorporates
  individual level, rather than ecological, exposure assessment. However, not all potential
  confounders were fully addressed and this remains a possible explanation for the association
  found.
- The study population in Mexico City does not receive fluoridated drinking water although fluoride is added to salt in Mexico. Although we do not have urinary fluoride levels specifically for pregnant women in Canada, the urinary fluoride levels found in the study are within the range that may be found in some individuals in Canadian communities with fluoridated water supplies (or in some individuals without fluoridated water but with other sources of fluoride exposure).
- The study did not find any clear relationship between IQ and urinary fluoride levels less than 0.8 mg/L. Whether or not this reflects a threshold for effect is unclear.
- Given the socio-economic, cultural and environmental differences between the study population in Mexico City and residents of Ontario communities, caution should be exercised in generalizing the results beyond cohort studied.
- This study should be viewed in the context of a growing body of literature which investigates
  possible relationships between low dose fluoride exposure and possible effects on
  neurocognitive development. While many published studies have reported an association,
  considered individually, there are at present, no methodologically strong studies of direct
  relevance to Ontario.

# Prepared by:

Elaina MacIntyre, PhD, Epidemiologist Specialist, Environmental and Occupational Health, Public Health Ontario

Sonica Singhal, BDS, PhD, Scientist, Oral Health, Health Promotion Chronic Disease and Injury Prevention, Public Health Ontario

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# Disclaimer

This document was developed by Public Health Ontario (PHO). PHO provides scientific and technical advice to Ontario's government, public health organizations and health care providers. PHO's work is guided by the current best available evidence at the time of publication.

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Ontario

Agency for Health
Protection and Promotion
Agence de protection et

Public Health Ontario acknowledges the financial support of the Ontario Government.

From: Ray&Alison Hebert

 $\frac{hmacdonald@leamington.ca;}{paterson@leamington.ca;}; \frac{nsantos@kingsville.ca;}{pgordonqueen@msn.com;}; \frac{nsantos@kingsville.ca;}{pgordonqueen@$ To:

bdipasquale@amherstburg.ca; mayor@town.lasalle.on.ca; mbondy@town.lasalle.on.ca; Tom Bain;

afazio@lakeshore.ca; gmcnamara1@cogeco.ca; jbachetti@tecumseh.ca; Mary Birch

Subject: Fluoridation

Date: Tuesday, June 05, 2018 8:43:56 PM

To Whom It May Concern,

As citizens in our community of Windsor. We ask that you don't add fluoridation chemicals to our water.

The quality and safety of our drinking water is of importance to us and our family!

Thank You,

Ray&Alison Hebert

From: Anna Guenther

To: <a href="mailto:hmacdonald@leamington.ca">hmacdonald@leamington.ca</a>; <a href="mailto:jpaterson@leamington.ca">jpaterson@leamington.ca</a>; <a href="mailto:nsantos@kingsville.ca">nsantos@kingsville.ca</a>; <a href="mailto:pgordonqueen@msn.com">pgordonqueen@msn.com</a>;

rmcdermott@essex.ca; rmeloche@essex.ca; sbondy@essex.ca; adicarlo@amherstburg.ca; bdipasquale@amherstburg.ca; mayor@town.lasalle.on.ca; mbondy@town.lasalle.on.ca; Tom Bain;

afazio@lakeshore.ca; gmcnamara1@cogeco.ca; jbachetti@tecumseh.ca; Mary Birch

Subject: Fluoridated Water

**Date:** Tuesday, June 05, 2018 9:07:53 PM

### To our local representative,

As a health conscious mom I am concerned that the Health Unit is proposing fluoride be added to our drinking water. I do not consent to having this added to our drinking water and will happily purchase a filter for my home to remove it in order to protect my family but know that unfortunately not many people are in a position to be able to do so for their own families. This is an unnecessary and unsafe, mass medication forced upon our county. Fluoride is easily obtained at the dentist or through toothpaste and applied directly to the teeth. Drinking it has no medical benefit and thus should not be forced on people against their will. Please be a voice for liberty and free will in this matter.

Anna Guenther

Kingsville

From: Rachelle Dyck

To: <a href="mailto:rmeloche@essex.ca">rmeloche@essex.ca</a>; <a href="mailto:sbondy@essex.ca">sbondy@essex.ca</a>; <a href="mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mai

Subject: Wednesday meeting

**Date:** Tuesday, June 05, 2018 9:35:31 PM

My name is Rachelle Dyck. I live at Kingsville. I do not consent to fluoridation. Please don't add fluoridation chemicals to my water.

From: Kate

To: <u>Katie Omstead</u>

Subject: Opposition to Fluoridated Water

Date: Tuesday, June 05, 2018 9:59:31 PM

### Hello,

We're writing to express our opposition to the fluoridation of water. We're against it, as a sufficient amount (which must be spit out) it is already present in toothpaste. There is no need to add it to drinking water, which is dangerous when mixed with infant formula, hazardous for workers to handle, and costly (in the millions) to implement and maintain. It will corrode pipes and cause difficulities for both local food processing and the greenhouse industry, who require high quality water.

We do not consent to this aciton, and we hope that you will thinking long-term when voting about this important issue.

Many thanks,

Katie Omstead and Matthew Olewski (

, Leamington, ON)

From: <u>Jennifer McInnis</u>

To: <a href="mailto:nsantos@kingsville.ca">nsantos@kingsville.ca</a>; <a href="mailto:pgordonqueen@msn.com">pgordonqueen@msn.com</a>; <a href="mailto:rmcdermott@essex.ca">rmcdermott@essex.ca</a>; <a href="mailto:rmcdermott@essex.ca">rmcdermott@esse

 $\underline{adicarlo@amherstburg.ca}; \, \underline{bdipasquale@amherstburg.ca}; \, \underline{mayor@town.lasalle.on.ca}; \, \underline{adicarlo@amherstburg.ca}; \, \underline{mayor@town.lasalle.on.ca}; \, \underline{adicarlo@amherstburg.ca}; \,$ 

mbondy@town.lasalle.on.ca; Tom Bain; afazio@lakeshore.ca; gmcnamara1@cogeco.ca; jbachetti@tecumseh.ca;

Mary Birch; hmacdonald@leamington.ca; jpaterson@leamington.ca

Subject: Union Water System: proposal to fluoridate our water

**Date:** Tuesday, June 05, 2018 10:31:09 PM

### Dear Essex County Council Members,

I oppose the addition of fluoride to the Union Water System. I have lived in Ruthven/Kingsville for my whole life (41 years). Our water system has never been fluoridated. I still have all of my teeth.

I oppose the ingestion of fluoride. I prefer that I can control the dose of fluoride my family uses topically through toothpaste or treatments applied by a dental care professional. All forms of over the counter products with fluoride suggest that you should not swallow fluoridated products.

I do not wish for my family's exposure to fluoride to be based on their level of thirst.

We oppose the addition of fluoride to our drinking water.

Sincerely,

Jennifer McInnis and family

Kingsville

From: Rob McLean

To:

hmacdonald@leamington.ca; jpaterson@leamington.ca; nsantos@kingsville.ca; pgordonqueen@msn.com; McDermott, Ron; Meloche, Richard; Bondy, Sherry; adicarlo@amherstburg.ca; bdipasquale@amherstburg.ca; mayor@town.lasalle.on.ca; mbondy@town.lasalle.on.ca; Tom Bain; afazio@lakeshore.ca;

gmcnamara1@cogeco.ca; jbachetti@tecumseh.ca; Mary Birch

Subject: Flouridation

Date: Wednesday, June 06, 2018 8:32:56 AM

I do not consent to fluoridation. Please don't add fluoridation chemicals to my water.

Rob McLean

Harrow,

From: HeatherD

[ <u>@yahoo.com</u>] **Sent:** June 6,

2018 10:35 AM **To:** Mary Birch

**Subject:** Fw: Water Fluoridation

Subject: Water Fluoridation

**l oppose** fluoridation because the chemical used has never been tested for safety and is classified as **hazardous waste**. We get our fluoride from toothpaste or the dentist where we are cautioned to spit it out - no need to swallow to get the benefits for teeth.

The American Dental Association warns parents not to use fluoridated water to mix with infant formula. Breastmilk contains 1/100th the amount of fluoride as fluoridated water - meaning babies in fluoridated communities are overdosed with consequences to their bones, brains and teeth.

Fluoride is a **known** neurotoxin. We have an over abundance of chemicals in our air, water and food already! We do **NOT** need more. Please keep our drinking water safe by **NOT** adding a hazardous chemical. I do **NOT** consent to fluoridation.

Heather Moric

From: Mare Moore [ @yahoo.com]

**Sent:** June 6, 2018 11:06 AM

To: <a href="mailto:hmacdonald@leamington.ca">hmacdonald@leamington.ca</a>; <a href="mailto:jpaterson@leamington.ca">jpaterson@leamington.ca</a>; <a href="mailto:nsantos@kingsville.ca">nsantos@kingsville.ca</a>; <a href="mailto:pgordonqueen@msn.com">pgordonqueen@msn.com</a>; <a href="mailto:rmcdermott@essex.ca">rmeloche@essex.ca</a>; <a href="mailto:sbondy@essex.ca">sbondy@essex.ca</a>; <a href="mailto:sbondy@essex.ca">sbondy@essex.ca</a>; <a href="mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mail

jbachetti@tecumseh.ca; Mary Birch

**Subject:** I say emphatically 'NO' to fluoridation!

Esteemed Council Members,

I do NOT approve and am wholeheartedly against the fluoridation of water systems! Although I live in Windsor and not in the county, your decision WILL still very much affect myself and other Windsor residents who like to frequent restaurants and other establishments in your area but who do not wish to be poisoned when we are there and drink your water or eat food cooked in your water, not if it has been purposely contaminated with a toxic waste product of the fertilizer industry in the form of added fluoride!

Sincerely,

Mrs. Mary ("Mare") Moore,

From: Donna Jean Mayne

Along with several members of my family, I have a history of thyroid/parathoid health problems. According to the U.S. National Research Council and a family doctor, fluoride disrupts thyroid function. I strongly disagree with the Health Unit's promotion of artificial water fluoridation. Their claims of benefit are not substantiated, even in their own 2018 Report.

### Recommendation to Council:

Continue to commit to providing the safest, cleanest water possible to your constituents. Fluorosilicic acids are pollutants and the majority of Canadians, more than 22 million of us, have now rejected this toxic additive.

# Artificial Fluoridation (AF), The Complete Picture

# 1. Facts of AF remain irrefutable:

- The 2002 Safe Drinking Water Act states "Dilution is no excuse for adding a contaminant to drinking water."
- AF chemicals are classified as synthetic, persistent, bio-accumulative and toxic. They
  have never been regulated under Canada's Food and Drugs Act as a medicine, nutrient
  supplement or even as a food-grade additive.
- The Hazardous Waste Act prohibits the direct disposal of AF chemicals anywhere in the environment.
- No fluoride deficiency disease has ever been documented.
- The inability to control individual dose and the fact that fluoride accumulates in the body renders the notion of an "optimum concentration" obsolete.
- There are growing concerns that inordinate fluoride exposure from all sources, like
  pesticides, fumigant residues, fluorinated pharmaceuticals and dental products,
  contributes to health problems. The U.S. National Research Council has warned that
  kidney patients, diabetics, seniors and babies are especially vulnerable to harm from
  ingested fluorides.
- Published, variable controlled studies have shown no increase in tooth decay following cessation of AF.
- The National Sanitation Foundation's regulatory statute "Standard 60" requires a
   "toxicology review" of fluoridation agents. No study exists demonstrating safety or
   efficacy. The "hydrolysis" argument claiming testing is unnecessary is nothing short of
   ridiculous. If adding H2SiF6 to water makes it safe, dumping it in the lake or ocean
   would be legal.
- AF flies in the face of ethical medical practice, which affords individuals the right to consent.
- Water engineer's ultimate goal is to provide the safest, cleanest water possible.
   Engineers monitor and manage MAC (maximum allowable contaminant) levels of fluoride as they do lead and other contaminants.
- A Certificate of Analysis of every batch of HFSA delivered to municipalities show arsenic and other co-contaminants listed. (see attached sample)
- The vast majority of Canadians (more than 22 million) have now rejected AF.
- AF does not improve REAL factors that influence oral health proper nutrition, income status and dental insurance to access dental professionals.

# 2. The 2018 Oral Health Update

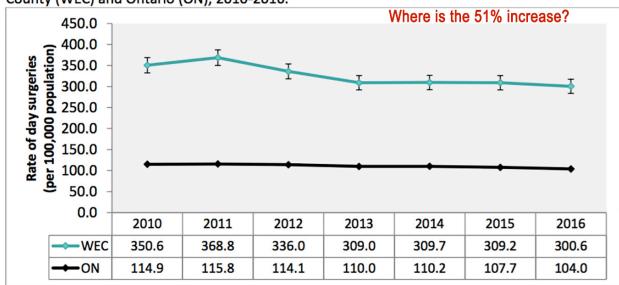
# **Claims** vs. the **Complete Picture**

Cessation in Windsor occurred **March 26, 2013**. The following data from the report includes all of Essex County from 2010. Increases in decay rates also include the years of AF.

**Claim**: "The rate of day surgeries by area residents was three times higher than the provincial rate...... The update also shows a 51 per cent rise over five years in the percentage of children requiring urgent oral care."

**Complete Picture:** Pg. 24 shows Windsor-Essex has **always** had higher oral health-related day surgery rates than the provincial average. And these rates were actually **worse during years of artificial fluoridation**. Meanwhile pg.10 claims Windsor-Essex is on par with Chatham-Kent and Sarnia-Lambton in surgery rates. Chatham and Sarnia remain fluoridated.

**Figure 8.** The rate of day surgeries for oral health (caries-related) issues in Windsor-Essex County (WEC) and Ontario (ON), 2010-2016.



**Source:** Ambulatory Emergency External Cause [2010-2016], Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO, Date Extracted: [March 19, 2018].

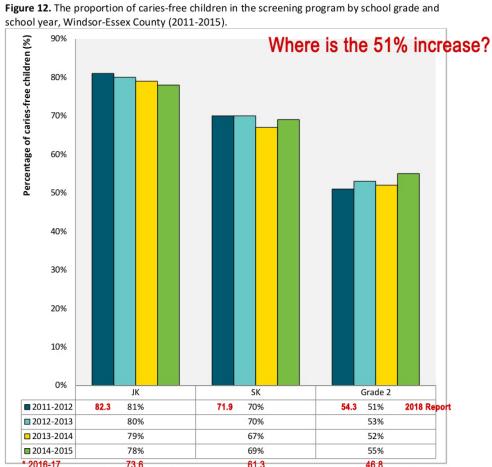
**Claim:** A three-fold increase in the proportion of children eligible for topical fluoride was observed between the 2011/2012 and 2016/2017 school years.

**Complete Picture:** Pg.28 explains how government criterion for eligibility automatically changes in non-fluoridated communities. And again, on pg.39, they state: **The large increases** in treatment in 2016 and 2017 are due to the changes to HSO program in January 2016.

**Claim:** There is a decreasing trend in the proportion of caries-free children observed in JK, SK and Grade 2, from 7 in 10 (70%) children being caries-free in JK to 5 in 10 (50%) in Grade 2.

**Complete Picture:** Like the rest of the world, the older you get the more likely it is that you will have a cavity!

Note – data for 2011-2012 was altered in 2018 from the 2016 report (see below). The Health Unit refers to data being "refreshed" but it actually makes AF appear more favourable. Can we assume then that the 2018 data is not accurate and will also be "refreshed" in 2020?



2016-17 73.6 61.3 46.8 Source: Oral Health information Support System [2011-2015], Ministry of Health and Long-Term Care (Accessed October 29, 2015)

**Claim**: The measure of decayed, missing, extracted, and filled teeth (deft/DMFT index) was highest in 2016/2017 and lowest in 2011/2012 school year indicating a trend in more oral health concerns among children at the time of school entry over time.

**Complete Picture:** Pg. 10 of the health unit's report states, "In Canada...toddlers 2 to 4 years of age are also demonstrating increasing rates of cavities..." so increasing trends are not exclusive to Essex county.

Once again, the **2018 report** had "refreshed" DMFT data from the 2016 report. And the Health Unit failed to mention improved scores for SK and Gr 2 in the school year 2014-2015. By focusing on 2011-12 and 2016-17, they conveniently ignore the fluctuating years in the middle that do NOT show any sort of "trend."

**Claim:** Over 9 in 10 visits to the emergency departments were by adults (18+) with the highest rates observed in young adults between 20 to 29 years of age.

Complete Picture: Yes, 93% of ED visits were adults. However, data in the 2018 report was altered considerably from the 2016 report and includes issues unrelated to decay, like TMJ pain and impacted teeth. But even if the "refreshed" data is accurate, one cannot point to lowered fluoride exposures while ignoring recent issues affecting our community's oral health.

- Increasing rates of refugees
- Aging population
- An opioid epidemic
- Lower income status

Following statements from the 2018 Oral Health Report itself confirm this:

Pg 10 "The lack of coverage and access to oral health care is a key barrier for good oral health. There are several other indicators that can act as barriers to good oral health, including, education level, **income**, **age**, where you live (urban or rural), **and immigrant status**.

Pg. 11 "... People are going to hospital emergency departments for dental problems because they are in pain and cannot afford dental treatment in the regular oral health care setting. This access problem can also impact how frequently people use physician offices for dental pain."

# Anne Jarvis, Windsor Star, May 29, 2018

"The unemployment rate in Windsor is 5.5 per cent, lower than the provincial and national averages. But look at broader measurements of economic health, and you see the impact of that loss, says Matt Marchand, CEO of the Windsor-Essex Regional Chamber of Commerce.

Household income dropped 6.4 per cent between 2005 and 2015, the biggest decline of any large city. The labour participation rate, those working or looking for work, dropped 6.8 per cent to 60.4 per cent, tied for lowest in Ontario. **We have the highest rate of children living in low income households**, 24 per cent."

Chatham still has AF but they attribute their above provincial average and ED increase to lower income. <a href="http://www.chathamdailynews.ca/2017/10/18/chatham-kent-health-unit-report-shows-average-of-1000-er-visits-for-oral-related-diseases-and-injuries">http://www.chathamdailynews.ca/2017/10/18/chatham-kent-health-unit-report-shows-average-of-1000-er-visits-for-oral-related-diseases-and-injuries</a>

Pg 19 "Individuals who access emergency departments (ED) for oral health issues tend to receive pain medication (e.g., opioids), and not treatment to resolve the oral health problem, which means that many will return to the ED. In an Ontario study, it was found that the majority (78%) of these types of visits were triaged as non-urgent, and most (93%) were simply discharged...Those in their mid-to-late twenties had the highest rate of ED visits for oral health related issues ..."

**Complete Picture:** Opioids, which are sometimes prescribed to treat pain, are also guilty of causing dry mouth and the consequent erosion of tooth enamel. <a href="https://mydental.guardianlife.com/blog/2017/06/7-medications-that-may-be-causing-your-teeth-to-decay/">https://mydental.guardianlife.com/blog/2017/06/7-medications-that-may-be-causing-your-teeth-to-decay/</a>

Claim: Fluoridation is about equity.

Complete Picture: Like any other classified neurotoxin, AF discriminates...hurting those who are the frailest the most. Studies have demonstrated that fluoride exposure may increase dental caries risk in malnourished children due to calcium depletion "...fluoride induced brittle teeth were demonstrated to be worse with industrial fluorides such as sodium fluoride (and HFSA) compared with naturally occurring calcium fluoride."

https://www.hindawi.com/journals/tswj/2014/293019/

The Michigan State Oral Health Plan (pg. 11) reported "disparities persist among individuals with a lower socioeconomic status, among minority racial and ethnic groups....(they) experience a disproportionate burden of oral health disease due to inadequate access to care..." Michigan has been practicing artificial water fluoridation for more than 70 years.

https://www.michigan.gov/documents/mdhhs/2020\_MichiganStateOralHealthPlan\_FINAL\_5119 29 7.pdf

Cochran, a trusted global independent network of researchers conducted a systematic review on water fluoridation in 2015. They concluded there was insufficient evidence to determine whether water fluoridation results in a change of disparities in caries levels across socioeconomic status. They also stated that there is little contemporary evidence that AF is effective and older study models that claimed benefit were at a high risk of bias. <a href="http://www.cochrane.org/CD010856/ORAL">http://www.cochrane.org/CD010856/ORAL</a> water-fluoridation-prevent-tooth-decay

# 3. Developments since 2013

- Lancet Neurology classified fluoride as a developmental neurotoxin confirming previous statements by the EPA Neurotoxicology Division <a href="http://www.thelancet.com/journals/lanneurol/article/PIIS1474-4422%2813%2970278-3/abstract">http://www.thelancet.com/journals/lanneurol/article/PIIS1474-4422%2813%2970278-3/abstract</a>
- Claims of a \$38 savings for every dollar spent on fluoridation chemicals was debunked by this study. <a href="http://dx.doi.org/10.1179/2049396714Y.0000000093">http://dx.doi.org/10.1179/2049396714Y.0000000093</a>
- 2017 study debunks claims that a rise in tooth decay in Calgary was caused by fluoridation cessation there. <a href="https://www.ncbi.nlm.nih.gov/pubmed/28994462">https://www.ncbi.nlm.nih.gov/pubmed/28994462</a>
- Dozens of new studies linking harm to fluoride including cognitive impairment and recent findings warning people with hypothyroidism to drink non-fluoridated water. <a href="https://www.ncbi.nlm.nih.gov/pubmed/29422493">https://www.ncbi.nlm.nih.gov/pubmed/29422493</a>
- Lawsuit launched that could lead to EPA banning AF. <a href="http://fluoridealert.org/news/court-decision-could-lead-to-epa-banning-water-fluoridation/">http://fluoridealert.org/news/court-decision-could-lead-to-epa-banning-water-fluoridation/</a> and another from a resident of the Peel Region against municipal and provincial government for administering a medical treatment without informed consent.
- Mosaic, the company we used to purchased fluorosilicic chemicals from, was fined \$1.8 billion by the U.S. EPA in 2015 for mismanaging this hazardous waste.
   https://www.epa.gov/enforcement/mosaic-fertilizer-llc-settlement

- 401 crash and chemical spill that took the life of the driver transporting AF chemicals March
   14, 2017 <a href="http://ottawacitizen.com/news/local-news/mass-casualty-response-after-chemical-spill-pile-up-closes-highway-401">http://ottawacitizen.com/news/local-news/mass-casualty-response-after-chemical-spill-pile-up-closes-highway-401</a>
- 2014, Health Canada reveals NO studies exist that demonstrate the AF chemical (H2SiF6) is safe or effective.

Our file: A-2014-00168 / na



Access to Information and Privacy Division 7th Floor, Suite 700, Holland Cross, Tower B 1600 Scott Street Address Locator: 3107A Ottawa, Ontario K1A 0K9

May 26, 2014

Joanne David <address snipped> EDMONTON AB T6R 0B4

Dear Ms. David:

This is in response to your request under the Access to Information Act (the Act) for: Clarified Request Text:

Reports, studies, toxicology and clinical tests relating to hydrofluosilicic acid in Canadian tap water

### Original Request Text:

Documents pertaining specifically to hydrofluosilicic acid in Alberta and Canadian tap water:

- Studies from 1940 showing dental efficacy and human safety.
- Studies from 1950s showing dental efficacy and human safety.
- Any double blind study done by Canada or any province showing dental efficacy and human safety, of any date.
- Any double blind study done by anywhere in the world that was considered.
- Any toxicity study, of any date, done by Canada or the world that was considered.
- Evidence of any kind (not opinion) that shows statistical viability of water fluoridation in terms of efficacy, and margin of error calculations.
- Evidence of any kind (not opinion) that shows statistical viability of water fluoridation in terms of human safety over a life-time, and margin of error calculations.
- Evidence of any kind (not opinion) that shows statistical viability of water fluoridation in terms of human safety, and margin of error calculations, for infants, young children, elderly, or any adult with disability, diabetes, bone disease, autism, thyroid ailments, kidney disease, etc.
- Evidence of any kind of consideration of human rights and medical ethics, namely our human right to opt out of the forced water fluoridation program, and if that consideration exists, why the overriding of these well-established medical standards are breached.

After a thorough search for the requested information, no records were located which respond to your request.

If you have any questions or concerns about the processing of your request, please do not hesitate to contact Nancy Armstrong, the analyst responsible for this request, either by phone at (613) 960-4457, or by fax at (613) 941-4541, or by e-mail at nancy.armstrong@hc-sc.gc.ca with reference to the file number cited above.

# 4. Statements - The Complete Picture

The EPA's Headquarters Union of Scientists (consisting of 1,500 professional people)

"...our opposition to drinking water fluoridation has grown, based on the scientific literature documenting the increasingly out-of-control exposures to fluoride, the lack of benefit to dental health from ingestion of fluoride and the hazards to human health from such ingestion. These hazards include acute toxic hazard, such as to people with impaired kidney function, as well as chronic toxic hazards of gene mutations, cancer, reproductive effects, neurotoxicity, bone pathology and dental fluorosis." http://cof-cof.ca/wp-content/uploads/2012/08/Why-U.S.-Environmental-Protection-Agency-Headquarters-Union-Of-Scientists-Oppose-Fluoridation-NTEU-01-May-1999.pdf

American Medical Association Dr. Flanagan, Assistant Director of Environmental Health

"The American Medical Association is not prepared to state that no harm will be done to any person by water fluoridation. The AMA has not carried out any research work, either long-term or short-term, regarding the possibility of any side effects." <a href="http://www.nofluoride.com/amaletter.cfm">http://www.nofluoride.com/amaletter.cfm</a>

Ontario Ministry of Health and Long-Term Care Recommended and actual intakes of fluoride in Canada

"Given the lack of adequate contemporary data, recommendations regarding optimal daily intakes of fluoride were based on dose-response data published in the 1940's. Optimal intakes are those derived from water fluoridated at 0.8 to 1.2 ppm, assuming no other sources of fluoride except food. Maximum intakes were based on consumption of water at 1.6 ppm, the level before moderate fluorosis appears. Actual total daily intakes were derived from amounts present in water, food, breast milk, air, soil and toothpaste. In Canada, actual intakes are larger than recommended intakes for formula-fed infants and those living in fluoridated communities. Efforts are required to reduce intakes among the most vulnerable age group, children aged 7 months to 4 years. Children of this age who are consuming the maximum dose are at risk of moderate levels of dental fluorosis and are consuming amounts only 20% less than that at which skeletal fluorosis is possible if maintained over long periods."

http://health.gov.on.ca/en/common/ministry/publications/reports/fluoridation/fluoridation.aspx

Caledon [Not Fluoridated] - Brampton [Fluoridated] Study: D. ITO Determinants of caries in adjacent fluoridated and non-fluoridated cities. The IADR/AADR/CADR 85th General Session and Exhibition (March 21-24, 2007).

The study concluded "The effect of fluoridation on caries in these communities was not evident" Factors that did affect the incidence of dental cavities were:

- · dental hygiene
- nutrition
- · use of dental sealants
- · breast feeding vs infant formulas
- country of birth

## Dr. Hardy Limeback comments Re: the WECHU 2018 Oral Health Report.

Dr. Limeback is the retired head of Preventive Dentistry at the University of Toronto. In addition to being a practicing dentist, he is a dental researcher/biochemist who has spent decades studying the effects of fluoride on teeth and bones.

He was one of 12 scientists in North America chosen to serve on the National Academy of Science's committee that produced the 2006 report *Fluoride in Drinking Water*. Taking three years to complete, it's considered the most comprehensive work ever done on the toxicity of fluoride. He also co-authored a study that debunked previous claims that AF cessation in Calgary caused a decay increase there. https://www.nap.edu/catalog/11571/fluoride-in-drinking-water-a-scientific-review-of-epas-standards)

To drink or not to drink? Fluoride debate set to hit council, again | CBC News



MENU ~



To drink or not to drink? Fluoride debate set to hit council, again



### Denis Vidmar-Plavi

Definitely no to fluoride in our water.

1 hour ago

▲ 1 ▼ 0 Reply Share



### James Reeves

Notice that promoters of this poisonous drug, fluoride, never discuss the ethics or morality of forcing EVERYONE to consume fluoride without consent, something a doctor or dentist cannot legally do.

Also notice that no one is trying to stop them from taking this poison individually, as much as they like in their own glass of water.

Then notice that they cannot produce one scientific study to show safety.

There are no studies (NOT ONE) showing that fluoride (hydrofluorosilicic acid) is safe... » more



### **Hardy Limeback**

I'm sorry, I just don't trust the health reports. They were unscientifically gathered and contain many mistakes. We showed that fluoridation cessation in Calgary did NOT increase dental decay and published it. Dental decay is multifactorial and studies have shown dental decay is increasing because of sugar abuse (especially soft drinks) and lower access to dental care, among other factors. The harmful effects of fluoridation are troublesome. The latest study on pregnant moms shows that as their fluoride exposure increases, the IQ of their children drop. Read the open access paper here ehp.niehs.nih.gov/EHP655/. Dr. Hardy Limeback BSc, PhD, DDS « less

3 hours ago

▲ 2 ▼ 0 Reply Share



Beth McLellan no to floride

4 hours ago

▲ 1 ▼ 0 Reply Share

### **5.** The Product is a Pollutant

**Claim:** "Fluoride is a naturally occurring mineral found in soil, water, and some foods. This mineral is also commonly added to tap water to help prevent tooth decay (cavities), by strengthening tooth enamel against acids causing decay."

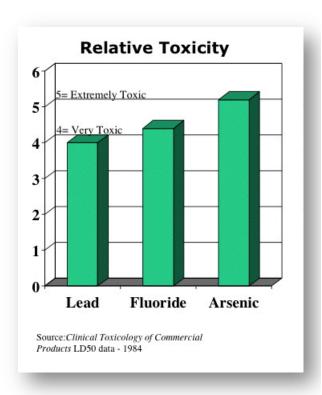
**Complete picture**: Many fluoride compounds occur naturally in the air, soils, rocks and water. However, the product used to treat drinking water  $(H_2SiF_6)$  is a synthetic, hazardous waste product. Its sole existence is due to the requirement of scrubbers on industrial smokestacks that help prevent poisonous gas emissions. Every batch of  $H_2SiF_6$  has varying levels of cocontaminants like As (arsenic) and Pb (lead).

The MAC for Pb in water is 15ppb, As is 10ppb but incredibly, F- is 1500ppb!



### CERTIFICATE OF ANALYSIS FSA Analysis Results of a Weighted Average Sample Collection Method Sample Composite Sample Reported Sample Received 3/11/2013 8:18:05AM 3/11/2013 8:05:00AM CHEMICAL ANALYSIS As 76.4 ppm 80 APHA Color H2SIF6 24.38 % HF 0.78 % Vessel ID TILX-110360 1.241 SPGV TPA 0.2477 % 72 f Temperature

33.2 ppm





Chad Basso / QC Lab Manager

This product meets AVWA Standard B703a-08 Maximum use for potable water 6.0 mg:Liter From: Marilyn Prior [ @gmail.com]

Sent: June 6, 2018 10:24 AM

**To:** <a href="mailto:bdipasquale@amherstburg.ca">bdipasquale@amherstburg.ca</a>; <a href="mailto:hmacdonald@leamingtom.ca">hmacdonald@leamingtom.ca</a>; <a href="mailto:jbachetti@tecumseh.ca">jbachetti@tecumseh.ca</a>; <a href="mailto:jpattersom@leamington.ca">jpattersom@leamington.ca</a>; <a href="mailto:macdonald@leamingtom.ca">macdonald@leamingtom.ca</a>; <a href="jbachetti@tecumseh.ca">jbachetti@tecumseh.ca</a>; <a href="mailto:jpattersom@leamington.ca">jpattersom@leamington.ca</a>; <a href="mailto:macdonald@leamington.ca">macdonald@leamingtom.ca</a>; <a href="mailto:jpattersom@leamington.ca">jbachetti@tecumseh.ca</a>; <a href="mailto:macdonald@leamington.ca">macdonald@leamington.ca</a>; <a href="mailt

Bain

Subject: Please don't add fluoridation

I oppose fluoridation in our drinking water because the chemical used has never been tested for safety and is classified as hazardous waste. We get our fluoride from toothpaste or the dentist where we are cautioned to spit it out - no need to swallow to get the benefits for teeth.

The American Dental Association warns parents not to use fluoridated water to mix with infant formula. Breastmilk contains 1/100th the amount of fluoride as fluoridated water - meaning babies in fluoridated communities are overdosed with consequences to their bones, brains and teeth.

I have great concern about a chemical known to be a neurotoxin being added to our drinking water and I do not consent to fluoridation Please don't add fluoridation chemicals to my water.

Sincerely,

Marilyn Prior

Tecumseh

Ontario

From:

To: Mary Birch

**Subject:** Council of Canadians statement on Fluoride

**Date:** June 6, 2018 10:08:40 AM

# For the record of Essex County Council

I am the chair of the Windsor Essex Chapter of the Council of Canadians.

Some of our major work is connected to water, be it protecting lakes and rivers from contamination by toxic oil spills, lack of government overview for construction projects, like pipelines, bringing awareness to past dumping of mercury by the pulp and paper industry at Grassy Narrows.

Locally we held demonstrations and lobbied to have the petcoke piles removed from the bank of the Detroit River, and we took 750 litres of water to Detroit when the city was turning water valves off to low income residents who could not afford to pay their bills.

Through our Blue Planet Project we have worked helping citizens of other nations take back their water systems from unscrupulous corporations.

Between 2008/2009, our national chair Maude Barlow served as Senior Advisor on Water to the 63<sup>rd</sup> President of the United Nations General Assembly and was a leader in the campaign to have water recognized as a human right by the United Nations.

As you can see we are passionate about clean safe water.

This brings me to the Health Unit's request to introduce Hydrofluorsilicic acid (HFSA) into the water supply of our municipalities, the majority of which ends up in our lakes and rivers.

HFSA is:

- Classified by the Canadian Environmental Protection Act (CEPA) as synthetic, persistent, bioaccumulative and toxic
- An industrial byproduct never regulated under Canada's Food & Drug Act
- Co-contaminated with arsenic and other toxic elements according to National Sanitation Foundation certificates of analysis.
- Prohibited from direct environmental disposal by the Hazardous Waste Act

I am not a scientist but I do know that there are alternative ways of protecting teeth from decay

and it is not by adding a toxic chemical to our water.

The Council of Canadians is asking County Council to recommend it's municipalities not introduce any toxic chemicals to their drinking water.

Sincerely,

Douglas Hayes

The Council of Canadians

Windsor Essex Chapter

### Let Water Be Water

Hello, my name is Ayesha Drouillard and I'd like to help you understand the product used for water fluoridation. As a mother of two children, I'm very careful about my consumer choices. But I have no choice when it comes to the fluoride content of our drinking water.

The substance used for water fluoridation is called **hydrofluorosilicic acid**. It's added to our water, allegedly, to prevent tooth decay. It's **not** a naturally occurring form of fluoride (like calcium fluoride), **nor** is it the pharmaceutical grade (like sodium fluoride) used in your dentist's office. You can hold the fluoride that's found in nature in your hand. But if a hydrofluorosilicic acid transportation spill occurred, the recommended clean up protective equipment includes a hazmat suit.

This is the **only** chemical added to our water for the purpose of **mass medication**. It's **not** a nutrient and it does **not** clean or purify the water, like chlorine does. It cannot be removed from the water by boiling as this only concentrates the levels further. It's also absorbed through the skin and inhaled when we bathe or shower. It's basically unavoidable. We drink less than 2% of it. The other 98% literally goes down the drain when we do things like laundry or wash dishes.

The truth (confirmed by the Windsor Utilities Commission) is that HFSA is an **unregulated byproduct** of the fertilizer industry. At one time, that industry allowed toxic fluoride gasses to escape out of their smokestacks but the damage that resulted to surrounding crops and livestock lead to the passing of environmental laws requiring wet scrubbers to capture these toxic gasses. The result is a slurry called HFSA which is classified as **hazardous waste** and is illegal to dump anywhere in the environment. HFSA comes with co-contaminants of arsenic, lead, mercury and more. NSF certificates of

analysis from various cities like Winnipeg, Toronto and London show that they all contain impurities and the amounts of these contaminants vary in each batch.

An excellent new study by Dr.Phyllis J Mullenix called "A new perspective on metals and other contaminants in fluoridation chemicals" shows that fluoride additives contain metal contaminants that must be diluted to meet drinking water regulations. They don't come labeled with concentrations per contaminant. All the samples contained combinations of arsenic, lead, barium a surprising amount of aluminum. The conclusions are that "this creates a regulatory blind spot that jeopardizes any safe use of fluoride additives". Clearly, dilution is the solution to this industry's pollution, and our children's kidneys are the filter.

The Canadian Environmental Protection Act classifies HFSA as a **bio-accumulative**, **persistent toxin** because it builds up in our bodies and environment. Proponents claim that medicating our water with HFSA is cost-effective. This is because industry saves money by not having to neutralize their hazardous waste, instead they sell it to municipalities. It would cost them a lot to dispose of it properly.

\*It's also important to note that raw fluoride levels in the Detroit River **exceed** the levels of concern set by the Species at Risk Act.

Excessive ingestion of fluoride during early childhood can damage tooth-forming cells leading to a defect in the enamel known as **dental fluorosis**. This disease is **not** just a cosmetic problem, but a window to the bones. Dental fluorosis is the visible sign of fluoride poisoning. Like bones, a child's teeth are alive and growing. Fluorosis is the result of fluoride rearranging the crystalline structure of a tooth's enamel as it is still growing. It is evidence of fluoride's potency and ability to cause physiologic changes within the body, and raises concerns about similar damage that may be occurring in the bones.

Fluoride is also associated with skeletal fluorosis, arthritis, bone fractures in children, and hip fractures in the elderly. It's been known for decades that fluoride reduces thyroid function. It impacts the brain and has been linked to bone and bladder cancers. The list goes on and on!

Fluorosis rates for anemia and thyroid dysfunction should be monitored. But they won't look for things if they're afraid of what they'll find.

I'm not against the topical use of pharmaceutical grade fluoride treatments at the dentist's office. We just don't want to drink HFSA. Even at the dentist you have to spit it out AND you have a **choice**. Dentists are experts of teeth and matters of the oral cavity, they are not educated about the effects of hydrofluorosilicic on the rest of the body or the environment! The Centre for Disease Control conceded that the method by which fluoride works is **topical**. When applied to the **surface** of the teeth, **not** by ingesting it.

Health officials who promote fluoridation of municipal drinking water and claim that it's safe and effective are not toxicology experts. They're only experts of the policies that endorse fluoridation. These policies are based on the science of long ago, instituted when arsenic, asbestos and lead were considered harmless.

Currently, less than 6% of the Earth's population artificially fluoridate their water and this small fraction is diminishing as more and more communities are realizing the fact that the products used for water fluoridation have never been tested for safety on humans or the environment.

This is an issue that affects so much more than our teeth. It affects our basic human rights and the overall well-being of our community! The precautionary principle requires that we consider the possible benefits and harms and whether there are alternatives for producing the benefit.

For fluoride, the benefit is slight if any. Possible harm is great and almost certain for some, like dental fluorosis and thyroid suppression. There are harmless and accessible alternatives for attaining the desired benefit. And so, fluoride does not pass the test of the precautionary principle.

Remember that it's not the responsibility of safe water advocates to prove that HFSA is dangerous. Promoters of water fluoridation need do their due diligence to prove that hydrofluorosilicic acid is safe for humans, animals and the environment **before** adding it to our water. If in doubt, leave it out! With your help, all of Essex County can continue enjoying water free of hydrofluorosilicic acid along with most of Canada and the rest of the world.

Thank you for your time,

Ayesha Drouillard

Artificial Water Fluoridation is UNSAFE, UNNECESSARY AND UNETHICAL

For: Essex County Council, Council Meeting of June 6, 2018

By: Kimberly DeYong

# **Background**

Essex County has, for the most part, never participated in artificial water fluoridation schemes; currently consisting of seven municipalities with potable water service provided across municipal boundaries. Today, none of the water supplies in Essex County are artificially fluoridated.

Leamington: has never been fluoridated and receives water from the Union Water System.

Amherstburg: halted fluoridation in April 2011<sup>1</sup> needing costly fluoridation equipment upgrades. In May, 2013 council passed a by-law<sup>2</sup> to permanently discontinue fluoridation and directed administration to "request from government jurisdictions including Health Canada, the Ontario Ministries of Labour and Environment, evidence ensuring that town employees and any others working with the hydrofluorosilicic acid process are not put in harm's way, as required by the Ontario Health and Safety Act (1990)."<sup>3</sup>

Lakeshore: receives water from 5 sources, only 2 were fluoridated: Stoney Point and Windsor Utilities Commission. The remaining 3 were never fluoridated. In November 2011 council voted unanimously to end fluoridation at the Stoney Point water treatment facility at the recommendation of their Waterworks Engineer.<sup>4</sup> Mayor Tom Bain told media "There is no need for any concern. Council had a report from our administrative group that recommended doing that, based on the fact that if you're using toothpaste, there's plenty of fluoride in the toothpaste and in fact there could be health concerns if a person gets too much fluoride,"<sup>5</sup>

Tecumseh: gets water from Windsor Utilities Commission. In March 2012 "Tecumseh town councillors voted 3-1 Tuesday in favour of asking the city of Windsor to stop putting fluoride in the drinking water...following the lead of the Windsor Utilities Commission, which recommended last month to discontinue the fluoride."

Lasalle: gets water from Windsor Utilities Commission. In March 2017 council unanimously supported a Region of Peel resolution calling on the Premier of Ontario and the Minister of Health and Long Term Care "(i) to undertake appropriate and comprehensive toxicity testing necessary to reassure the public that the use of HFSA in water treatments is safe and (ii) take legislative responsibility for the regulation and administration of HFSA in water fluoridation treatments across the province relieving local governments from what is a provincial responsibility."

Kingsville: has never been fluoridated and in April, 2015 voted unanimously "reaffirming its stance saying it will continue to be fluoride free."

Essex: has never been fluoridated and in March 2017 voted unanimously to receive but not support the Peel Region's Resolution on Water Fluoridation, citing the Union Water System's position on Water Fluoridation.

In 2012, Windsor Utilities Commission recommended the City of Windsor end artificial water fluoridation. City council voted to support this recommendation and passed a 5 year moratorium on fluoridation in January 2013. They will revisit the issue this year.

# **Union Water Supply System (UWSS)**

- Officially commissioned in 1960
- Provides potable water to municipalities of Leamington, Kingsville, Essex and Lakeshore
- Water fluoridation was considered in early 1960's but never implemented because of concerns, especially in regards to the agri/food processing industry.

# UWSS's Current position and concerns regarding Water Fluoridation<sup>9</sup>:

- Opposed to mandatory water fluoridation.
- Fluoridation chemicals result in no net improvement to the potable quality of drinking water.
- Significant capital costs including millions for new building, equipment, upgrades to Supervisory Control and Data Acquisition system, new corrosion prevention system and ongoing increased operations and maintenance costs of system.
- Health and safety concerns for treatment plant operations staff handling of hazardous fluoridation chemicals, renegotiation of Operations and Maintenance contracts, likely resulting in significant cost increases
- Agri/Food packaging industry including canned food products and large greenhouse industry (some using hydroponics), dependent on high quality water source and important to our local economy.
- An increase to corrosion in transmission and distribution system pipes due to change in PH.

# **UNSAFE**

# FOR THE SAKE OF OUR CHILDREN'S BRAINS IQ Studies

Bashash<sup>10</sup> et al conducted a study on IQ and prenatal fluoride exposure, published in Environmental Health Perspectives September, 2017. It found that higher prenatal fluoride exposure in pregnant women was associated with lower IQ scores in the children at ages 4, 6-12yrs.

"This is a very rigorous epidemiology study. You just can't deny it. It's directly related to whether fluoride is a risk for the neurodevelopment of children." Lead author Dr. Howard Hu, National Post, September 20, 2017

"I think this study is a red flag. And when you take it into consideration with the Chinese studies, I think the time is way overdue for a broad-scale evaluation of fluoride exposure." Dr. Phillipe Grandjean, world renowned scientist/author on neurotoxicity unaffiliated with this study, Medscape October 2, 2017

Who has conducted studies relevant to the fluoride exposures of our children and pregnant women in Essex County and will sign-off that hydrofluorosilicic acid (or its derivatives) is safe for a lifetime of ingestion?

# FOR THE SAKE OF OUR CHILDREN'S SMILES Dental Fluorosis

The WECHU Oral Health Report 2018 claims there is no dental fluorosis in our community, however, they only screened children up to grade 2, that do not have their permanent teeth. Meanwhile, the Canadian Health Measures Survey<sup>11</sup>, that looked at twice as many non-fluoridated communities as fluoridated, reported that nearly 40% of adolescents in Canada have some form of dental fluorosis, the visible sign of fluoride toxicity.

"In Canada, we are now spending more money treating dental fluorosis than we do treating cavities. That includes my own practice." Dr. Hardy Limeback, B.Sc., Ph.D in Biochemistry, D.D.S., former head of the Department of Preventive Dentistry for the University of Toronto, and past-president of the Canadian Association for Dental Research.

The American Dental Association cautions parents not to use fluoridated water when mixing infant formula. And instead recommends that mothers breastfeed<sup>12</sup>. "Human breast milk contains about 1/100th of the fluoride that is in treated municipal water."

"In Canada, actual intakes are larger than recommended intakes for formula-fed infants and those living in fluoridated communities. Efforts are required to reduce intakes among the most vulnerable age group; children ages 7 months to 4 years." and

"Certainly, the assumption that 'very mild' and 'mild' forms of fluorosis are acceptable, which underlies much current thinking about fluoridation, may need to be reconsidered."...Clearly, the simplest way of reducing the prevalence of fluorosis in child populations is to cease to fluoridate community water supplies." Ontario Ministry of Health, Benefits and Risks of Fluoridation. 13

Peer-reviewed published Canadian study proves water fluoridation increases dental fluorosis rates. "When fluoride was removed from the water supply the prevalence and severity of dental fluorosis decreased significantly." <sup>14</sup>

Dental fluorosis treatments are not covered by most dental insurance plans nor by the provincially funded programs available to low income families. However, these plans and programs do cover topical fluoride treatments administered by a dental professional. Why not leave toxic fluoride in the hands of professionals to be administered with care and monitoring?

Will municipal water bills come with a warning for parents of formula fed infants, if you decide to add fluoridation chemicals to your constituents' drinking water supply?

# FOR THE SAKE OF THE VULNERABLE Not Only Bad for Babies

Segments of the population are unusually susceptible to the toxic effects of fluoride. They include: "postmenopausal women and elderly men, pregnant woman and their fetuses, people with deficiencies of calcium, magnesium and/or vitamin C, and people with cardiovascular and kidney problems." <sup>15</sup>

The Health Unit's recommendation falsely assumes to know the exact daily dose of fluoride needed to prevent decay without causing harm to anyone including the most vulnerable: formula fed babies, those with kidney disease, thyroid dysfunction and more.

# FOR THE SAKE OF OUR COMMUNITIES' WATER QUALITY No Safety Studies

Municipal drinking water licenses require that any chemical added to the water supply must meet National Sanitation Foundation (NSF) Standard 60. National Sanitation Foundation (NSF) does not conduct health harm research nor do they accept liability for their recommendations. NSF Standard 60 states that all chemicals used in a drinking water system as well as any impurities require toxicology evaluation to determine if contaminant concentrations have the potential to cause adverse human health effects. Hydrofluorosilicic acid (hfs or hfsa) does NOT have the required toxicology studies. This has been confirmed by Windsor Utilities Commission Chief Operating Officer, John Stuart, who told the WUC board that hfs is a by-product of the phosphate fertilizer industry 16 and that it does not come with the toxicology studies required by NSF Standard 60.17

## No Canadian Legislation Authorizes the Use of Fluorosilicates

The Fluoridation Act<sup>18</sup> sets out the procedure for beginning or ending a fluoridation scheme. It states that where a waterworks system is operated by or for two or more local municipalities, a majority of the municipalities must pass a by-law requiring fluoridation of the water supply. It does not mention or authorize acceptable fluoridation chemicals.

The Ontario Safe Drinking Water Act<sup>19</sup> sets out the requirement for chemicals added to water to meet NSF Standard 60. Hydrofluorosilicic acid does not have the toxicology studies required to meet Standard NSF 60 and is therefore not compliant with the OSDWA. The Ontario Safe Drinking Water Act does not authorize or regulate the use of fluoridation chemicals.

**OSDWA Section 19 Standard of care, municipal drinking water system** sets out who is responsible and liable for municipal drinking water: "every person who, on behalf of the municipality, oversees the accredited operations authority of the system or exercises decision-making authority over the system". Municipal councillors are responsible and must be accountable, not the health and dental agencies recommending and endorsing fluoridation.

No municipal water fluoridation chemical has ever been regulated by Health Canada or the Ontario Ministry of Health and they concede that health harm toxicology research has never been conducted on hydrofluorosilicic acid.<sup>20</sup>

What tangible scientific evidence does Essex County have in its possession, proving hydrofluorosilicic acid when used in concentrations intended within our water supply, is 'safe and effective' for lifetime swallowing/systemic ingestion?

## UNNECESSARY

## Scientific Evidence that Artificial Water Fluoridation is NOT Effective Relevant Canadian Studies

- 1. "The prevalence of caries decreased over time in the fluoridation-ended community while remaining unchanged in the fluoridated community." *Patterns of dental caries following the cessation of water fluoridation*, Maupome G, Clark DC, Levy SM, Berkowitz; Journal of Community Dental Oral Epidemiology 2001: 29:37-47
- 2. "This meta-analysis of available research demonstrates that cavity rates remained the same or continued to decline in communities which discontinued artificial water fluoridation." *Oral Health Consequences of the Cessation of Water Fluoridation in Toronto* 2006, Azarpazhooh A, Stewart H (Chief Dental Officer for Toronto).

- 3. "The effect of fluoridation on caries in these communities was not evident...We found virtually no difference in caries prevalence or severity between 7-year-old children from schools in non-fluoridation Caledon and schools matched on socio-economic factors, in fluoridated Brampton." *Determinants of caries in adjacent fluoridated and non-fluoridated cities*, Ito D (Past-President of Ontario Association of Public Health Dentistry); IADR/AADR/CADR 85th General Session and Exhibition March 12-24, 2007 #2757.
- "The few studies of communities where fluoridation has been withdrawn do not suggest significant increases in dental caries." Benefits and Risks of Fluoridation, Dr. David Locker (Faculty of Dentistry, University of Toronto); Ontario Ministry of Health 1999 Study.

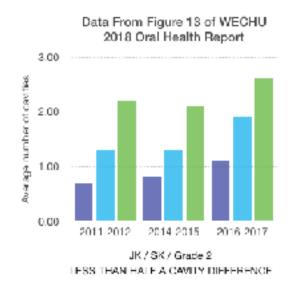
The CDC is one of the most frequently quoted sources in support of fluoridation. However, in 1999<sup>21</sup> and repeated in 2001<sup>22</sup>, the CDC conceded that "fluoride's predominant effect is post-eruptive and topical." which means it works by applying it directly onto the tooth surface, such as from toothpaste. Ingesting it is not necessary. When water fluoridation schemes began, fluoridated toothpaste was not readily available. Today we can easily come by fluoridated toothpaste, tablets, mouthwash and more.

## Less Than Half a Cavity Difference Locally

The WECHU's 2018 Oral Health Report combines data for the whole county and does not break down results based on municipality. The conclusions drawn, unlike the studies listed above, do not control for confounding factors such as: access to fluoride from all sources, income, diet, oral hygiene, visits to a dentist or length of time living in Canada and our region. The report is not scientific nor does it provide useful data for policy makers. Despite the health unit's

claim that oral health has declined,
MOST of the children screened had
ZERO cavities. The 2018 report was
adapted from the 2016 report which did
break out some data by municipality. In
the 2016 report, Lasalle and Tecumseh
had the best oral health outcomes.
Windsor, Essex, Amherstburg, Lakeshore
and Kingsville were statistically similar
and Leamington had slightly worse
outcomes and overall from best to worst
the difference was LESS THAN HALF A
CAVITY.

Even with the regional data combined in the 2018 report, the difference is LESS THAN HALF A CAVITY.



## Elsewhere in the Country

Statistics Canada data coincides with that of our region. The difference between Quebec and Ontario is LESS THAN HALF A CAVITY. The Globe and Mail requested a breakdown of Stats Can data by province and published an article about it in 2010 with an update in 2017.<sup>23</sup>

"When it comes to fluoridating drinking water, Ontario and Quebec couldn't be further apart. Ontario has the country's highest rate...while Quebec has one of the lowest, with practically no one drinking fluoridated water. But surprisingly, the two provinces have very little difference in tooth-decay rates...Ontario was lower by less than half a cavity per child."

Essex County Councillors "need to <u>insist</u> that any purported reduction in dental caries/cavities ascribed to fluoridation, is clearly expressed in absolute terms, not merely percentage reduction terms. **Zero to fifty percent cavity reduction, when expressed in real terms, means zero to half a cavity reduction per person per lifetime, not a mouthful of cavities being reduced to half a mouthful of cavities. If municipal council is set to spending precious scarce taxpayer dollars on water fluoridation practice, council would be wise to insist that payback for such investment can be proven to their taxpayers/investors…"<sup>24</sup>** 

## **UNETHICAL**

Classification: Hazardous Waste, Do NOT Swallow

Canada's Food & Drug Act and Canada's Natural Health Product Regulations legislates all products making a specific health claim (such as preventing dental cavities) but does NOT control or regulate hydrofluorosilicic acid or any fluoridation chemical.

**Canadian Environmental Protection Act** classifies hydrofluorosilicic acid as "persistent", "bio-accumulative" and "toxic".

**Environment Canada** classifies hydrofluorosilicic acid as a "hazardous substance". **Transport Canada** classifies hydrofluorosilicic acid as a "dangerous good".

It is illegal to put hydrofluorosilicic acid anywhere in the environment. "fluoride that otherwise would be an air and water pollutant is no longer a pollutant as long as it's poured into your reservoir. The solution to pollution is dilution and in this case, the dilution is your drinking water." Dr. William Hirzy, Senior EPA Scientist. Except, today we have the Safe Drinking Water Act that states Dilution is No Defence.

## **Ethical Failings**

Dr. James Beck is a Professor Emeritus of Medical Biophysics at the University of Calgary, a physician and a biophysicist. He is the co-author of the book The Case Against Fluoride. He was pivotal in providing evidence to the City of Calgary Council in their decision to end fluoridation. Dr. Beck's submission<sup>25</sup> to the City of Windsor in 2012 includes:

## The ethical failings of water fluoridation:

- The recipient has not given informed consent
- An individual hasn't the option to stop it
- There is no one monitoring for negative effects

#### If in Doubt, Leave it Out

Dr. Paul Connett is an Environmental Chemistry and Toxicology expert that has extensively researched and written about artificial water fluoridation. He is a co-author of the book The Case Against Fluoride. His submission<sup>26</sup> to the City of Windsor in 2012 warns that "There have now been over 100 animal experiments showing that fluoride can damage and interfere with the brain; 10 studies that show fluoride can change animal behaviour; three studies that show an association with fluoride exposure and fetal brain development in endemic fluorosis areas in China and at least 26 studies that show an association of fluoride exposure and lower IQ.

## Healthcare is a Provincial Responsibility

Municipalities are responsible for providing the safest drinking water possible. The province is responsible for healthcare administration and regulation. Our own MPP, Taras Natyshak, opposes water fluoridation. "I write today to offer my support to those Essex County residents and groups working to improve the safety of our drinking water supply and waste water returning to the environment. I understand that hydrofluorosilicic acid is added to the drinking water supply as a means to prevent tooth decay; essentially as a medicine for the treatment of the disease dental caries. As this medication is administered via the drinking water supply, individuals are not being given the right to refuse this medical intervention and therefore are being medicated without consent." He further states "I have reviewed information about water fluoridation from various sources and am satisfied that erring on the side of precaution would be in the best interest of our community." 27

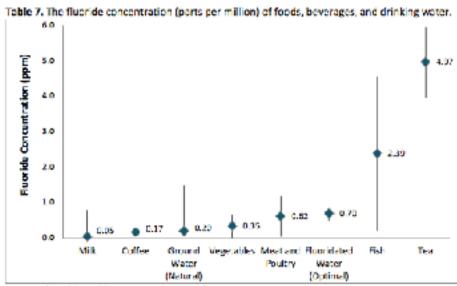
#### **Practice Precaution**

The Precautionary Principle: "(1) taking preventive action in the face of uncertainty; (2) shifting the burden of proof to the proponents of an activity; (3) exploring a wide range of alternatives to possibly harmful actions; and (4) increasing public participation in decision making."<sup>28</sup>

With no required toxicology studies conducted on the fluoridation chemical and with the plethora of science indicating potential harm to vulnerable populations the safety of artificial water fluoridation is definitely uncertain. The burden of proof of safety lies with the proponents of fluoridation who, at present, only endorse while taking no regulatory responsibility for the chemical used in the practice. The alternatives to water fluoridation are plentiful and readily available. By keeping fluoridation chemicals out of the public's drinking water, individuals can decide for themselves, what, if any, fluoride product they choose.

#### Alternative Sources

The WECHU's 2016 Oral Health Report provided this table showing fluoride concentrations of some food and beverages. Why not promote tea to those that wish to ingest fluoride and keep public drinking water supplies free of unnecessary chemicals?



Source: (World Health Organization, 2006).

Note: Fluoride toothpaste contains 1,000 - 1,500 ppm of fluoride.

# FOR THE SAKE OF THE POOR Barriers to Oral Health

A published study titled A Critical Review of the Physiological Effects of Ingested Fluoride as a Public Health Intervention<sup>29</sup> concludes "that given the questionable evidence of benefit and increasing evidence of harm the policy of water fluoridation for the prevention of dental caries should be abandoned in favour of more effective interventions combining community wide and targeted oral health interventions." The study found that fluoride exposure increases cavities in those who are malnourished and lack sufficient calcium intakes. This is critical because promoters contend that this public health policy helps low income families when in fact it may harm them by increasing risk of cavities and dental fluorosis. Criteria for eligibility<sup>30</sup> for the provincially funded dental health program, Healthy Smiles Ontario, includes not living in a fluoridated community, making water fluoridation another possible barrier to oral health for low income families.

## **Conclusions**

Public Health could and should spend more effort promoting healthy diet, regulating junk food within and near school sites, educating proper oral hygiene and strengthening provincial oral health programs targeted at those in need, instead of wasting tax payer resources promoting artificial water fluoridation: an unsafe, unnecessary and unethical failed public health policy.

The province is responsible for healthcare and as such they should be liable for regulation of fluoridation chemicals. This should not be off-loaded to municipal councillors.

Municipal water suppliers are charged with providing the safest drinking water possible. They are not responsible nor qualified to prescribe medication via the public water supply.

Essex County Councillors can feel satisfied that their continued rejection of artificial water fluoridation is a progressive and protective decision, for both residents and the environment.

- <sup>1</sup> Appendix A: Town of Amherstburg letter dated January 6, 2012 from Public Works Department to Medical Officer of Health
- <sup>2</sup> Appendix B: Town of Amherstburg Engineering and Infrastructure report dated May 27, 2013
- <sup>3</sup> Town Council Passes Moratorium on Putting Artificial Fluoridation into Drinking Water, The Amherstburg Echo, Feb 7, 2012 http://cof-cof.ca/2012/02/4958/
- <sup>4</sup> Appendix C: Town of Lakeshore Engineering and Infrastructure report dated October 12, 2011, A Review of Fluoridation in Drinking Water in Lakeshore
- <sup>5</sup> Lakeshore Removes Fluoride From Water Supply, CBC News Windsor, Nov 1, 2011 <a href="http://www.cbc.ca/news/canada/windsor/lakeshore-removes-fluoride-from-water-supply-1.1014366">http://www.cbc.ca/news/canada/windsor/lakeshore-removes-fluoride-from-water-supply-1.1014366</a>
- <sup>6</sup> CBC News Windsor, March 14, 2012 <a href="http://www.cbc.ca/news/canada/windsor/tecumseh-wants-fluoride-out-of-water-1.1186207">http://www.cbc.ca/news/canada/windsor/tecumseh-wants-fluoride-out-of-water-1.1186207</a>
- <sup>7</sup> Appendix D: Corporation of the Town of LaSalle, Resolution regarding fluoridation
- <sup>8</sup> Kingsville Votes Against Fluoridated Water, Blackburn News, April 28, 2015 http://blackburnnews.com/windsor/windsor-news/2015/04/28/kingsville-votes-against-fluoridated-water/
- <sup>9</sup> Appendix E: Union Water Supply system's Position on Mandatory Fluoridation March 30,2015
- <sup>10</sup> Prenatal Fluoride Exposure and Cognitive Outcomes in Children at 4 and 6-12 Years of Age in Mexico, Environmental Health Perspectives https://ehp.niehs.nih.gov/ehp655/
- <sup>11</sup> Canadian Health Measures Survey 2007-2009, pg 41
- <sup>12</sup> Health Canada downplays fluoride fears for infants, updated April 26, 2018. https://www.theglobeandmail.com/life/health-canada-downplays-fluoride-fears-for-infants/article1090474/

- <sup>13</sup> The Ontario Ministry of Health's 1999 study: Benefits and Risks of Fluoridation, Dr. Locker of the Faculty of Dentistry, University of Toronto
- <sup>14</sup> Changes in dental fluorosis following the cessation of water fluoridation,, Clark DC, Shulman JD, Maupome G, Levy SM: Journal of Community Dental Oral Epidemiology 2006; 34:197-204
- <sup>15</sup> United States Public Health Service Report (ATSDR TP-91/17, pg. 112, Sec.2.7, April 1993)
- <sup>16</sup> Source of fluoridation chemical, WUC Special Fluoridation Meeting Feb 29, 2012 <a href="https://www.youtube.com/watch?v=UKFuChX1Yl8&t=2s">https://www.youtube.com/watch?v=UKFuChX1Yl8&t=2s</a>
- <sup>17</sup> No Safety Studies per NSF Standard 60, WUC Special Fluoridation Meeting Feb 29, 2012 https://www.youtube.com/watch?v=qZ2GKw6zgPw
- <sup>18</sup> Fluoridation Act <a href="https://www.ontario.ca/laws/statute/90f22">https://www.ontario.ca/laws/statute/90f22</a>
- <sup>19</sup> OSDWA <a href="https://www.ontario.ca/laws/statute/02s32">https://www.ontario.ca/laws/statute/02s32</a>
- <sup>20</sup> Appendix F: Health Canada Access to Information and Privacy Division letter dated May 26, 2014
- <sup>21</sup> Centers for Disease Control and Prevention, "Achievements in Public Health, 1900-1999"
- <sup>22</sup> Centers for Disease Control and Prevention, "Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States, "Morbidity and Mortality Weekly Report 50, no. RR14 (August 17, 2001): 1-42
- <sup>23</sup> Fluoridation may not do much for cavities, Globe and Mail https://www.theglobeandmail.com/life/health-and-fitness/fluoridation-may-not-do-much-for-cavities/article4315206/
- <sup>24</sup> Submission to the City of Windsor dated January 25, 2013 by Robert Fleming, President of Canadians Opposed to Fluoridation <a href="https://www.citywindsor.ca/cityhall/City-Council-Meetings/Meetings-This-Week/Documents/F54">https://www.citywindsor.ca/cityhall/City-Council-Meetings/Meetings-This-Week/Documents/F54</a> 20130125151124.pdf
- <sup>25</sup> Submission to the City of Windsor dated April 24, 2012 by Dr. James Beck <a href="https://www.citywindsor.ca/cityhall/City-Council-Meetings/Meetings-This-Week/Documents/F7\_20130118111420.pdf">https://www.citywindsor.ca/cityhall/City-Council-Meetings/Meetings-This-Week/Documents/F7\_20130118111420.pdf</a>
- <sup>26</sup> Submission to the City of Windsor dated June 30, 2012 by Dr. Paul Connett <a href="https://www.citywindsor.ca/cityhall/City-Council-Meetings/Meetings-This-Week/Documents/F24">https://www.citywindsor.ca/cityhall/City-Council-Meetings/Meetings-This-Week/Documents/F24</a> 20130118112442.pdf
- <sup>27</sup> Appendix G: Letter from Taras Nayshak re: Water Fluoridation
- <sup>28</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1446776/
- <sup>29</sup> Water Fluoridation: A Critical Review of the Physiological Effects of Ingested Fluoride as a Public Health Intervention; The Scientific World Journal https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3956646/
- <sup>30</sup> Ministry of Health and Long-Term Care Oral Health Protocol 2018 http://www.health.gov.on.ca/en/pro/programs/publichealth/oph\_standards/docs/protocols\_guidelines/Oral\_Health\_Protocol\_2018\_en.pdf

## Appendix A



## The Corporation of the

## Town of Amherstburg

512 SANDWICH STREET SOUTH AMHERSTBURG, ONTARIO N9V 3R2 www.amherstburg.ca

#### PUBLIC WORKS DEPARTMENT

Tel (519) 736-3664 Fax (519) 736-7080 LOU ZARLENGA, P.ENG.

Director of Engineering and Infrastructure

January 6, 2012

G. Allen Heimann, MD, MHSc Medical Officer of Health 1005 Ouellette Ave. Windsor, ON CANADA N9A 4J8

Attention:

Dr. Allen Heimann

SUBJECT:

Temporary Termination of Fluoridation at the Amherstburg Water Treatment Plant Information for Council Consideration of Continuation of the Fluoridation Program

FILE NO:

PWD-WM-2011-006

Dear Dr. Heimann,

As you are aware on April 27, 2011 I provided you with information indicating the Town would have to temporarily terminate the fluoridation program for the Town's drinking water as upgrading to the fluoridation system has been directed by the Ministry of the Environment. In this regard, the Town has engaged the services of CH2MHill Canada to prepare the necessary reports and plans and the Town is expecting a draft report from CH2MHill by the end of January 2012.

As I indicated in the April 27, 2011 letter, in conjunction with proceeding with addressing the concerns with the fluoridation system, Administration plans to bring the matter of fluoridation to Council for further direction on whether to continue or to abandon the practice of fluoridation. I would appreciate it if you could send your thoughts on the use of fluoride in water treatment systems to aid in our discussion with Council. I am aware that the majority of Health Units are in favour of fluoridation, however, there does seem to be a great difference of opinion within the public sector.

We are looking forward to your comments at your earliest convenience.

Sincerely

Lou Zarlenga, P.Eng.

Director of Engineering and Infrastructure

## Appendix B



#### **Council Report**

Report To: Mayor Hurst and Members of Council

Date of Meeting: May 27, 2013

Submitted By: Lou Zarlenga, P. Eng.,

Director of Engineering and Infrastructure

Prepared By: Antonietta Giofu, P.Eng., Environmental Services Engineer

Date of Report: May 9, 2013

File No.: PWD-WM-13-005

Subject: Termination of Fluoridation – Housekeeping Matter

#### RECOMMENDATION:

That the report by Lou Zarlenga, dated May 9, 2013 regarding the Termination of Fluoridation – Housekeeping Matter be received;

And further that <u>By-law 2013-45</u> being a By-law to discontinue the fluoridation system in the Town of Amherstburg be taken as having been read three times and finally passed and the Mayor and the Clerk be authorized to sign same thereto.

#### REPORT:

In 1961, the Province enacted the Fluoridation Act. This act provides the council of a local or regional municipality the authority to establish, maintain, operate, and discontinue a fluoridation system in connection with a waterworks system, through establishment of a By-law.

On March 18, 2013, the Town of Amherstburg Council passed a motion that the process of permanently removing the fluoridation system be initiated. As a part of that process Administration is preparing an application for the amendment to the Drinking Water Works Permit and Drinking Water License. The application must include a copy of a By-law authorizing the discontinuation of the fluoride system.

In 1971 By-law 1269 was passed being a By-law respecting the fluoridation of the water supply of the Town of Amherstburg. In order to terminate the fluoridation of the drinking water in Amherstburg By-law 1269 must be repealed and Council must pass a By-law authorizing the discontinuation of the system.

Accordingly, this report provides By-law 2013-45 for that purpose.

## FINANCIAL IMPLICATIONS:

There is no financial implication associated.

#### CONSULTATIONS:

None

#### ATTACHMENTS:

By-law 2013–45 Being a By-law to discontinue the fluoridation system in the ⊤own of Amherstburg

Respectfully submitted,

Lou Zarlenga, P Eng.

Director of Engineering and Infrastructure

#### TOWN OF LAKESHORE

## ENGINEERING AND INFRASTRUCTURE SERVICES ENVIRONMENTAL SERVICES DIVISION

TO:

Mayor and Members of Council

FROM:

John Kehoe, P. Eng.

Waterworks Engineer

DATE:

October 12, 2011

SUBJECT:

Fluoridation

A Review of Fluoridation of Drinking Water in Lakeshore

## RECOMMENDATIONS:

It is recommended that:

 Council authorize Administration to bring to Council a by-law which would discontinue the practice of fluoridation at the Stoney Point Water Treatment Plant.

## BACKGROUND:

This report is intended to inform Council regarding the issue of fluoridation of drinking water in the Town of Lakeshore. The issue of adding fluoride to drinking water has become an issue that is being widely discussed both inside and outside of the drinking water business. Regulations and recommendations for fluoridation in several jurisdictions in Canada and beyond are currently being reviewed and in some cases changed. Given that the decision whether to fluoridate or not is left to individual drinking water systems in Ontario, administration considers that a review of Lakeshore's practices and policies would be timely.

#### COMMENTS:

Fluoridation of drinking water is the practice of adding dissolved fluoride to drinking water with the intent to reduce tooth decay especially in children. Fluoridation of drinking water began in 1945 in Grand Rapids. Michigan It had been found in the first half of the 20<sup>th</sup> century that people who drank groundwater with high levels of natural dissolved fluoride were subject to two effects, a discolouration or mottling of their teeth (called fluorosis) and lower levels of tooth decay. It was established in 1943 that 1.0 mg/L of fluoride in drinking water would protect against tooth decay without causing fluorosis. At present it is estimated that the drinking water to 62% of the US population and to 76% of Onterio's population is fluoridated. The degree of drinking water fluoridation varies greatly between provinces; Alberta and Ontario are over 75%, B.C. and Quebec are less than 5%.

In most English-speaking countries (Australia, New Zealand, Ireland, Canada, the United States) a majority of drinking water is fluoridated (it is even mandatory in Ireland for large public water systems). In most of continental Europe drinking water fluoridation was either never adopted or was abandoned by the 1990s. Most European countries have addressed dental health by providing universal dental care as part of their public health care systems and in some cases by adding fluoride to table salt.

As noted previously, the optimal fluoride dosage for combating tooth decay was established as 1.0 mg/L in the 1940s. This has been progressively reduced from 1.0 mg/L to 0.7 mg/L. The reason for the progressive reduction is that whereas in the 1940s ingestion of fluoride from sources other than drinking water was negligible, in the 21<sup>st</sup> century it can be appreciable. For example most toothpastes are now fluoridated. There is a concern that the levels in artificially fluoridated drinking water combined with other sources could be enough to cause mild fluorosis.

Council should note that there has always been a degree of controversy regarding fluoridation of drinking water. The practice has been subject to strong support and vehement opposition. Administration does not adopt a position on this public health debate because it is not qualified to do so. Any information that is provided is derived from official sources or authoritative water supply industry publications.

The municipal drinking water supply to residents of Lakeshore comes from five (5) sources:

- Lakeshore Water Treatment Plant (Town of Lakeshore)
- Stoney Point Water Treatment Plant (Town of Lakeshore).
- Windsor Water Treatment Plant (through the Town of Tecumseh) (Windsor Utilities Commission)
- 4. Ruthven Water Treatment Plant (Union Water Supply System)
- Wheatley Water Treatment Plant (Chatham-Kent PUC)

Two of these sources are fluoridated, those from Stoney Point and from Windsor. In particular note that Lakeshore only fluoridates at one of the treatment plants it operates. The reasons for this discrepancy are that the two Lakeshore plants were owned and operated by different municipalities and operating authorities before the amalgamations that created the Town of Lakeshore. The original owner municipalities made different decisions in respect of fluoridation.

Fluoridation at the old Belle River WTP was authorized by Belle River (By-law 11-72) and Maidstone (By-law 2645 1972) in 1972. The equipment for fluoridation was installed in 1974. That equipment was never used. It is not known for certain why the equipment was never used. Anecdotal evidence suggests that while there was a clearly a majority on Belle River and Maidstone Councils in favour of fluoridation in 1972, subsequent Councils did not authorize commissioning the fluoridation system.

For the Stoney Point WTP, Tilbury West (By-law 1806 06 88, June 20, 1988) and Tilbury North (By-law 29-88, July 19, 1988) adopted by-laws to authorize fluoridation in 1988. Fluoridation was started at Stoney Point WTP in 1992 and has been operated ever since.

The approximate number of customers presently receiving fluoridated and unfluoridated drinking water in Lakeshore is as follows:

Service Area	Fluoridated	Unfluoridated
Lakeshore	0	20,200
Stoney Point	5,280	0
Tecumseh	360	0
Union Water	0	3,100
Chatham-Kent	0	400
Total	5,640	23,700
Percentage	19%	81%

The legal framework for drinking water fluoridation in Ontario is provided by the following legislation and their associated regulations:

- Fluoridation Act 1990
- 2. Safe Drinking Water Act 2002

The Fluoridation Act 1990 is the third such act and supercedes acts of the same name passed in 1970 and 1980. The decision to begin to fluoridate or to stop has always been a local matter in Ontario. The current Act provides for the establishment or discontinuance of fluoridation in a drinking water system by a municipality. In the case of the Town of Lakeshore, Council has the authority under the Act to discontinue fluoridation by passing a by-law. It may also submit a question to this effect to its electors but that is not required. A vote by the municipality's electors would be binding on Council.

The Safe Drinking Water Act 2002 provides for a drinking water system to operate under a Drinking Water Works Permit which specifies the treatment equipment that is used by that system. In the event that Lakeshore was to discontinue fluoridation at Stoney Point WTP, an application for a DWWP amendment would have to be made to the MCE in order to remove the fluoridation equipment. In the event that Council had voted to discontinue fluoridation, this application would have to be approved by the MCE.

Administration believes that it is advisable to discontinue fluoridation at the Stoney Point WTP and thereby to have unfluoridated water consistently supplied to almost all of Lakeshore's customers. Fluoridation is a process that does not contribute to the municipality's objective of providing safe drinking water. The presence of fluoride does not make Stoney Point's drinking water any more or any less safe than that provided in any of the unfluoridated service areas. Fluoridation is implemented as a public health measure which is ancillary to

providing safe drinking water. In addition there are costs and operational issues associated with fluoridation. The process requires the provision of equipment, time spent on maintenance and operation of that equipment and the purchase and handling of fluoride salt. Operationally fluoride salt is a hazardous material which requires the operators to take special precautions including using disposable coveralls, gloves and respirators. In addition, recently a Town operator suffered a back injury while handling the bags that the fluoride salt is supplied in.

### OTHERS CONSULTED:

The Manager of Environmental Services, the Medical Officer of Health and the Town Solicitor were consulted in the preparation of this report.

## BUDGET IMPACTS:

There would be not costs associated with the discontinuation of fluoride at the Stoney Point WTP. The fluoridation at the Stoney Point WTP involves the following operational and capital costs that would be saved by discontinuing the process:

- Fluoride salt costs approximately \$3,200 per year.
- The operators are estimated to spend an average of 30 minutes per day on tasks associated with the fluoridation system.
- The dosing pump for the fluoridation system is close to the end of its expected life and will need to be replaced within two years at an estimated cost of \$4,000.

Prepared by:

John Kehoe, P. Eng.

Waterworks Engineer

Reviewed by

Tom Touralias, P. Eng., MBA Director, Engineering and

Infrastructure Services

Submitted by:

Kirk Foran

Acting Chief Administrative Officer

JK/pmr

W. Council Reports 2011 Meeting Eates-Reports 10 - October 25, 2011 - Council Meeting Fluendation Report doc



March 21, 2017

The Honourable Kathleen Wyrne Premier of Ontario Legislative Building – Room 261 Gueen's Park Toronto, Ontario MZA 181

## Corporation of the Town of LaSalle

5950 Molder Road, Labale, Ortana, NOH 154 Phone: 517-969-7770 Fax: 519-969-4469 www.own.launle.co.en

Agatho Amstrarg, Deputy Clerk

RECEIVED

MAR 2 4 2017

Region of Pool Clarks Dept.

Dear Premier Wynne:

#### RE: Resolution reparding Community Water Fluoridation from the Regional Municipality of Peel

Please be advised that Town of LaSalle Council at its meeting held March 14, 2017 gavo consideration to correspondence from the Regional Municipality of Paul regarding community water fluoridation. At this time. Town of LaSalle Council also endorsed and supported this Correspondence through the following resolution:

WHEREAS If a Minister of Health and Long Term care is working to establish a bealth system in Ordanic that is based on helping people stay healthy, delivering good once when people need it, and protecting the bealth system for future generations;

AND WHEREAS, the Ministry of Health, and Long Term Care has changed to focus to work towards before health care for Onteriors, and stewardship has become its mission and manuals:

AND WHEREAS, this new stewerosopy role will mean that the Ministry will provide overall direction and legaciship for the system, developing legislation, regulations, standards, policies and directives to support the health of Organisms;

AND WHEREAS, on January 7: 2016 the Region of Peol received a lotter from the Minister of Health and Long Term Care, Dr. Eric Hoskins, supporting the benefits of water fluoridation as an important measure to protect the health of Ontarisms,

AND WHEREAS, the Province of Ontario is responsible for The Safu Drinking Water Act, the purposes of which include (i) mangairing that the people of Ontario are ontified to expect their drinking water be safe end (ii) providing for the protection of numan health and the provention of drinking water health hazards through the control and regulation of drinking water systems and drinking water testing:



AND WHEREAS, Municipal Councillors do not have the detailed familiarity to interpret data regarding the efficacy of Hydrofluorosilicic Acid (EHSA) in water fluoridation treatments and ere struggling with a range of conflicting reports and public concern on the matter of fluoridation:

THEREFORE BE IT RESOLVED, that Regional at Peel Council request the Premier of Onterior and the Minister of Health and Long Term Care, whose mandate it is to protect the health of Octarians, (i) to undertake appropriate and comprehensive toxicity testing necessary to reassure the public that the use of HESA in weign fluoridation treatments is safe, and (ii) take logislative responsibility for the regulation and administration of HESA in water fluoridation treatments across the province relieving local governments from wind is a provincial responsibility;

AND FURTHER THAT, a copy of this resolution be obtained to the Handurable Kathleen Wyone, Premier of Onland and the Handurable Dr. Eric Haskins, Minister of Health and Long Team Care.

Carried.

Thank you for your attention to this matter.

Sincerely,

Agatha Armstrong

Deputy Clark

Co: Frank Date, Regional Grain and CEO. Regional Municipality of Hool Honourable Dr. Eric Hoskins, Minister of Health and Long Term Card



## Union Water Supply System

P.C. Box 346, 1515 Union Avenue, Rushver, Ontario, 110P 2G0 Tole: 519 526-1668 Fax: 519-326-3496 Email: ripouchardialunionwater.ca

www.unionwater.ca

SENT BY: mail

March 30, 2015

Ministry of Health and Long Term Care Minister's Office 80 Groevenor Street 10th Floor, Hepburn Block Toronto, ON M7A 2C4

Attention: Hon. Dr. Eric Hoskins, Minister

Ministry of the Environment and Climate Change Minister's Office 77 Wellesley Street West 11th Floor, Ferguson Block Toronto, Ontario M7A 2T5

Attention: Hon. Glen Murray, Minister

Dear Sirs.

RE: Union Water Supply System's Position on Mandatory Fluoridation

At the January 17°, 2015 meeting of the Union Water Supply System (UWSS) Joint Board of Management a discussion was raised by UWSS Board members in regards to the November 27°, 2014 motion that was passed by Ontario MPPs that endorses water fluoridation as a healthy and essential measure to minimizing tooth decay. This motion was tabled to the Ontario Legislature by Mississauga-Streetsville MPP Bob Delaney.

In regards to this motion and other circulating correspondence that suggest possible provincial consideration for mandatory fluoridation of drinking water, the UWSS Board directed the UWSS General Manager to send correspondence to the Ontario Minister of Health and Long Term Care and the Ontario Minister of Environment and Climate Change to outline the UWSS' position on drinking water fluoridation.

History of Union Water Supply System

Prior to outlining UWSS' position on the subject of mandatory fluoridation of drinking water, it is somewhat important to first provide some historical information on the Union Water Supply System for context purposes.

The creation of the Union Water System (now the Union Water Supply System) came about through the Province of Ontario's drive to develop regional drinking water systems by the Ontario Water Resource Commission (OWRC) under the *Ontario Water Resources Commission Act*. The idea behind this Act was that clusters of municipalities would be better served by larger Regional Drinking Water systems rather than individual smaller systems.

For the development of the Union Water System, the OWRC signed agreements in southwestern Ontario with the municipalities of Essex, Gosfield North, Gosfield South, Learnington, Kingsville, Rochester and Sandwich South, Maidstone and Mersea and the H.J. Heinz Company to construct and operate facilities for Joint use. This agreement to construct the Union Water System would ensure potable water to the partner communities, while at the same time promoting industrial development. The Union Water System was officially commissioned in 1960 by CWRC. It should be noted that the design of the Union Water System did not include a fluoridation scheme and equipment for fluoridation was not included in the construction of the Union Water System treatment plant.

The ownership of assets and control of the Union Water System remained with the OWRC untithe OWRC's amalgamation into the Ministry of Environment in the early 1970's. The Ministry of
Environment retained control and ownership of Union Water System assets until the creation of
the Ontario Clean Water Agency (OCWA) in 1993, at which time ownership and control of the
system was transferred to OCWA. In 1997, the Province of Ontario passed and implemented
the Municipal Water and Sewage Transfer Act, 1997. This Act resulted in the transfer of Union
Water System assets, ownership and control from OCWA to the newly amalgamated
municipalities of Kingsville, Leamington, Essex and Lakeshore. This transfer of assets and
control for the system was completed through a Transfer Order dated 2001 between the
Province of Ontario and the Municipalities of Leamington, Kingsville, Essex and Lakeshore.

The Transfer Order stipulated the creation of a Joint Management Board of the Union Water Supply System (UWSS Board). The UWSS Board has full authority to manage the Union Water Supply System on behalf of the four respective municipalities. The UWSS Board is composed of 12 municipal councilors appointed by the municipalities in accordance with the representation requirements of the Transfer Order. Day to day administration of the Union Water Supply System is through the UWSS General Manager who reports to the UWSS Board.

The UWSS treats and transmits water to the four aforementioned municipalities for local distribution through municipally owned and operated distribution systems. Potable water from UWSS ultimately services approximately 60,000 residents, a variety of commercial and industrial businesses and a large agriffood processing industry that includes numerous canneries, tood processors, and over 1,000 hectares of greenhouse.

#### UWSS and Crinking Water Fluoridation

As mentioned previously, the original design and construction of the UWSS treatment and transmission facilities cid not include a drinking water fluoridation scheme. A review of available historical records indicates that the issue of drinking water fluoridation was briefly considered by the Union Water System Advisory Committee in the early 1960's. However, these records suggest that the Advisory Committee had concerns with the introduction of fluoride into the drinking water, especially in regards to the agri/food processing industry that utilized a significant portion of Union Water System's treated water. Large food processors (e.g. H.J. Heinz of Canada) were not in favor of utilizing fluoridated potable water within their food

products, which included infant food. As such, fluoridation of Union Water System's drinking water was never implemented and has never been introduced to this day.

## UW33' Position on Drinking Water Fluoridation

Firstly, it should be noted that the UWSS does not have an official position or opinion in regards to public health effects, positive or otherwise, of drinking water fluoridation. This is a public health issue, and not a water treatment issue. However, the UWSS does have concerns with the addition of a chemical to the UWSS drinking water that does not result in a not improvement in the water treatment process and thus an improvement to the potable quality of the drinking water.

Secondly. UWSS also has a number of other concerns that would be associated with the introduction of mandatory fluoridation at the UWSS facilities, specifically in regards to capital costs, health and safety concerns for treatment plant operations staff, and possible concerns to the agri/food processing industry "customers". These concerns are detailed further below.

## Capital Cost Concerns

As aforementioned in this letter, a fluoride introduction scheme was never included in the construction of the UWSS treatment facilities. As such, introduction of fluoride into the UWSS drinking water treatment process would require significant capital investment on UWSS' part. This would require the construction of a building for bulk storage of the fluoride chemical, and to house the equipment needed to inject fluoride into the drinking water. The new building would require a heating, cooling and ventilation system and likely a scrubber system to prevent ventilation of fluoride chemical to the atmosphere. Monitoring equipment would be needed to monitor the dosage of fluoride. Significant upgrades/modifications to the Supervisory Control and Data Accursition (SCADA) system would also be needed to allow treatment plant operators to monitor and control the fluoride system from the operator's control station.

Further, it needs to be noted that it is best practice to introduce the fuoride chemical after the water filtration step of the treatment process since filtration can extract fluoride thus potentially requiring boosting of the fluorice chemical to meet optimal dosage. This would not be operationally or cost effective. Also, the fluoride chemical solution typically has a low pH (approximately 1.0-1.5 on pH scale). The introduction of fluoride chemical after the filtration process would result in a decrease in pH of the treated water going to the contact champer and reservoir. There would be a high potential for the lower pH water going into the transmission system to increase corrosion in the transmission and distribution system pipes and services. To mitigate this increase in corrosion, the UW3S would need to introduce a corrosion prevention system (e.g. lime dosing system) at the treatment plant to increase the pH of the water. UWSS does not currently need to increase pH of the water since it already meets the preferred pH range to minimize corrosion. Thus the UWSS does not currently have the equipment and monitoring instruments needed to increase the pH of the water within the treatment plant.

The capital costs associated with the construction of a fluoridation system and a pH balancing system would require a several million dollar investment by the UWSS. Operational and maintenance costs for these systems would be a few hundred thousand dollars on an annual basis.

## Occupational Health & Safety Concerns

The implementation of a drinking water fluoridation scheme at UWSS would introduce occupational health and safety issues for treatment plant employees. Fluoridating chemicals, whether they be in solid form (i.e. sodium fluorosilicate and sodium fluoride) or liquid form (i.e. fluorosilicic acid) are hazardous materials. The design, construction and operation of equipment to receive, store and introduce the chemicals into the treated water require risk assessments for worker occupational health and safety issues and for the environment of and around the plant.

Operations and maintenance (O&M) of the UWSS treatment facilities is currently contracted out to an accredited drinking water O&M contracting firm under a multi-year fixed fee agreement. The existing O&M agreement does not include the operations and maintenance of a fluoridation or pH adjustment system. The introduction of a fluoridation scheme at the UWSS facilities would necessitate a renegotiation of the O&M agreement to include operations and maintenance of these systems; to ensure proper training of the treatment plant operators and maintenance staff in regards to drinking water fluoridation, and to address occupational health and safety hazards associated with handling of the fluoridation chemicals. This renegotiation would likely result in a significant cost increase to UWSS for O&M services.

## Agri/Food Packaging Industry Concerns

UWSS provides polable water, through the local municipal distribution systems, to a large Agri/Food processing industry. This industry consists of small to large volume producers of canned food products such as tomatoes, tomato paste and sauce, beans and legumes, juice, and a variety of other products. A large greenhouse industry that consists of over 1000 hectares of small (less than 1 hectare) to very large (greater than 50 hectares) greenhouse operations are also serviced with UWSS' potable water. These greenhouse operations mainly produce hydroponically grown tomatoes, peppers, and cucumbers but also grow other produce in smaller quantities.

During the 1960's when drinking water fluoridation schemes were being implemented at many drinking water systems throughout Ontario, other provinces in Canada and in the United States, concerns were raised by local Agri/Food processing operations in regards to inclusion of fluoride within Union Water's crinking water. Based on available historic documents, these concerns by food processing operations were the main driver for not including fluoride within Union Water's drinking water. The local Agri/Food processing industry within the UWSS' service area has grown significantly since then. This industry is very important to the local economy. This industry is also dependent on a high quality potable water source such as UWSS'. Any changes to the quality of the drinking water, such as the introduction of fluoride, would most likely raise some concerns by this industry.

## Closing Statement

The UWSS has identified some viable concerns that are associated with any consideration for mandatory fluoridation of UWSS' drinking water. It should be reiterated that the UWSS does not have an official position or opinion in regards to public health effects, positive or otherwise, of drinking water fluoridation. This is a public health issue, and not a water treatment issue. UWSS' concerns with any proposal for mandatory fluoridation are solely in regards to following:

- Significant capital costs to UWSS for designing and construction a drinking water fluoridation system:
- On-going operations and maintenance costs for the fluoridation system;
- Occupational Health and Bafety hazards to water treatment plant staff and personnel; and
- Concerns associated with the large local Agri/Food processing and greenhouse. industry that use UW33' potable water.

Based on the UWSS' concerns as detailed in this correspondence, the UWSS would not be in favor of mandatory fluoridation of UW33' drinking water. As such, the UW33 would not support at this time any consideration by the Province of Ontario to mandate fluoridation of municipal. drinking water.

Should you have any questions or comments regarding the information contained within this correspondence, please do not hesitate to contact the undersigned at your convenience.

Sincerely,

Alla

Rodney Bouchard, General Manager

Union Water Supply System Joint Board of Management

CC.

WECHU - Gary Kirk, MPP Taras Natyshav, MPP Rick Nichols, Peter Neighbid, Ben D Gloverni, Rices Philips, Torri



Access to Information and Privacy Division 7th Floor, Suite 700, Holland Cross, Tower B 1600 Scott Street Address Locator: 3107A Ottawa, Ontario K1A 0K9

May 26, 2014

Joanne David <address snipped> EDMONTON AB T6R 0B4

Dear Ms. David:

This is in response to your request under the Access to Information Act (the Act) for: Clarified Request Text:

Our file: A-2014-00168 / na

Reports, studies, toxicology and clinical tests relating to hydrofluosilicic acid in Canadian tap water

## Original Request Text:

Documents pertaining specifically to hydrofluosilicic acid in Alberta and Canadian tap water:

- Studies from 1940 showing dental efficacy and human safety.
- Studies from 1950s showing dental efficacy and human safety.
- Any double blind study done by Canada or any province showing dental efficacy and human safety, of any date.
- Any double blind study done by anywhere in the world that was considered.
- Any toxicity study, of any date, done by Canada or the world that was considered.
- Evidence of any kind (not opinion) that shows statistical viability of water fluoridation in terms of efficacy, and margin of error calculations.
- Evidence of any kind (not opinion) that shows statistical viability of water fluoridation in terms of human safety over a life-time, and margin of error calculations.
- Evidence of any kind (not opinion) that shows statistical viability of water fluoridation in terms of human safety, and margin of error calculations, for infants, young children, elderly, or any adult with disability, diabetes, bone disease, autism, thyroid ailments, kidney disease, etc.
- Evidence of any kind of consideration of human rights and medical ethics, namely our human right to opt out of the forced water fluoridation program, and if that consideration exists, why the overriding of these well-established medical standards are breached.

After a thorough search for the requested information, no records were located which respond to your request.

If you have any questions or concerns about the processing of your request, please do not hesitate to contact Nancy Armstrong, the analyst responsible for this request, either by phone at (613) 960-4457, or by fax at (613) 941-4541, or by e-mail at nancy.armstrong@hc-sc.gc.ca with reference to the file number cited above.

## Appendix G

From: Ayesha Drouillard Sent: June 27, 2012 12:18 AM

To: mayoro; Dilkens, Drew; Jones, Ron; Valentinis, Fulvio; Halberstadt, Alan; Sleiman, Ed; Gignac, Jo-Anne (Councillor);

Hatfield, Percy; Marra, Bill; Payne, Hilary; Maghnieh, Al; clerks

Subject: Fwd: LETTER FROM TARAS NATYSHAK RE: WATER FLUORIDATION

Dear Members of Flouride Free Windsor,

I write today to offer my support to those Essex County residents and groups working to improve the safety of our drinking water supply and waste water returning to the environment.

I understand that hydrofluorosilicic acid is added to the drinking water supply as a means to prevent tooth decay; essentially as a medicine for the treatment of the disease dental caries. As this medication is administered via the drinking water supply, individuals are not being given the right to refuse this medical intervention and therefore are being medicated without consent.

The province has dental health programs that provide fluoride treatments and dental health care to children and individuals that do not have dental coverage or the income to afford regular dental health care. It would be prudent that fluoride be administered by a health care professional licensed to handle this chemical. Stopping water fluoridation could save the municipalities the cost of buying the chemicals as well as the additional costs associated with handling hydrofluorosilicic acid.

As you may be aware, all of Essex County has either always been fluoridation free or has recently made the decision to become fluoridation free. Lakeshore council voted to cease late last year, Amherstburg voted to cease earlier this year as well as Tecumseh. This clearly represents a marked shift towards a fluoridation free county, offering safer water for drinking and safer effluent to return to the environment.

I have reviewed information about water fluoridation from various sources and am satisfied that erring on the side of precaution would be in the best interest of our community.

I therefore support your initiative to eliminate mandatory fluoridation of municipal water and would advocate that our partners at all levels of government consider the elimination of this program as a net benefit to our communities.

Sincerely,

Taras Natyshak

From: <u>Dan Gray</u>

To: <a href="mailto:hmacdonald@leamington.ca">hmacdonald@leamington.ca</a>; <a href="jpaterson@leamington.ca">jpaterson@leamington.ca</a>; <a href="mailto:nsantos@kingsville.ca">nsantos@kingsville.ca</a>; <a href="mailto:pgordonqueen@msn.com">pgordonqueen@msn.com</a>; <a href="mailto:pgordonqueen@msn.com">jpaterson@leamington.ca</a>; <a href="mailto:nsantos@kingsville.ca">nsantos@kingsville.ca</a>; <a href="mailto:pgordonqueen@msn.com">pgordonqueen@msn.com</a>; <a href="mailto:nsantos@kingsville.ca">nsantos@kingsville.ca</a>; <a href="mailto:pgordonqueen@msn.com">pgordonqueen@msn.com</a>; <a href="mailto:nsantos@kingsville.ca">nsantos@kingsville.ca</a>; <a href="mailto:pgordonqueen@msn.com">pgordonqueen@msn.com</a>; <a href="mailto:nsantos@kingsville.ca">nsantos@kingsville.ca</a>; <a href="mailto:pgordonqueen@msn.com">pgordonqueen@msn.com</a>; <a href="mailto:nsantos@kingsville.ca">pgordonqueen@msn.com</a>; <a href="mailto:nsantos@kingsville.ca">nsantos@kingsville.ca</a>; <a href="mailto:nsantos@kingsville.ca">pgordonqueen@msn.com</a>; <a href="mailto:nsantos@kingsville.ca">nsantos@kingsville.ca</a>; <a href="mailto:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:nsantosmallo:ns

rmcdermott@essex.ca; rmeloche@essex.ca; sbondy@essex.ca; adicarlo@amherstburg.ca;

<u>bdipasquale@amherstburg.ca</u>; <u>mayor@town.lasalle.on.ca</u>; <u>mbondy@town.lasalle.on.ca</u>; <u>Tom Bain</u>;

afazio@lakeshore.ca; gmcnamara1@cogeco.ca; jbachetti@tecumseh.ca; Mary Birch; councilmembers@essex.ca

Subject: Flouride or no... why don"t you let the people decide

**Date:** June 6, 2018 1:38:59 PM

To whom it may concern.

Right off the bat I'll put out there I'm against putting any chemicals in our water. You would never see municipalities order vitamin D be put in the water in Winter to combat sunshine deficiencies or Vitamin C to combat the cold. No council members expect a certain level of responsibility from their constituents.

So why would a council make a unilateral decision to put Fluoride, a known neurological toxin in our water. If people want to use it to protect their teeth there are many over the counter toothpastes that have it as an ingredient. I know as a kid I used to have the dentist make me rinse my mouth with it in the office. I'm sure most of you also had it given to you as kids in school in a little aluminum packet.

Unknown is the long term effects of this drug but some effects are weakened bones, ligaments, muscle weakness and nervous system problems. With the increase in demand on our healthcare system as is, why add something that could do this to people, to the water they count on to be safe.

I'm unable to make the meeting but I hope that my opinion is heard as a concerned member of the public. Trust the people who have voted you in to take care of themselves, government doesn't need to be involved in it.

Dan Gray Gray Media Productions Editor Chop Cut Rebuild Essex, Ontario