ST. CLAIR COUNTY HEALTH DEPARTMENT

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October 15, 2025

MEMORANDUM FOR: St. Clair County Municipalities with Municipal Water Systems

FROM: Dr. Remington Nevin, Medical Director, St. Clair County Health Department

SUBJECT: Recent Developments in the Science and Regulatory Landscape Pertaining to Municipal Water Fluoridation

This memorandum is being sent to all St. Clair County municipalities with municipal water systems to provide an update on some recent developments in the science and regulatory landscape pertaining to municipal water fluoridation, including a recent recommendation by our Advisory Board of Health that may impact your municipal water system's operations.

While municipal water fluoridation has been associated with reduced tooth decay, recent evidence suggests that the potential risks of this practice outweigh these benefits at current levels. Last August, the National Toxicology Program (NTP) concluded with at least moderate confidence, that fluoride at concentrations of 1.5 parts per million (ppm), or approximately double that currently recommended in municipal water systems, is associated with a risk of neurodevelopmental adverse effects, including lower intelligence in children. On reviewing this and other evidence, in September of last year, following a bench trial that first began in June 2020, a federal district court ordered the U.S. Environmental Protection Agency (EPA) to regulate fluoride at its current recommended concentration of 0.7 ppm as an unreasonable risk to health under the Toxic Substances Control Act (TSCA).

The lawsuit behind this action was first filed in April 2017 by the non-profit organization Food & Water Watch, after EPA refused to comply with the group's citizen petition under the TSCA, filed in November 2016, which asserted that "a large body of animal, cellular, and human research shows that fluoride is neurotoxic at doses within the range now seen in fluoridated communities." EPA initially denied this petition in February 2017, prompting the litigation at issue. The initial bench trial began in June 2020, and following a stay, resumed two years later, ultimately leading to a review of expert evidence including the August 2024 NTP report.

In a supplemental petition, the plaintiffs had asked EPA to "prohibit the addition of fluoridation chemicals to drinking water in order to protect the public, including susceptible subpopulations, from fluoride's neurotoxic risk", noting that an early draft of the NTP monograph had estimated a hazard level of 1.5 ppm of fluoride in drinking water. In recognition of the fact that EPA sets broad uncertainty factors, typically on the order of ten or more, to define acceptable levels of other harmful substances such as carcinogens, after the plaintiffs applied this uncertainty factor to the 1.5 ppm which NTP had acknowledged with moderate confidence was associated with harm, plaintiffs argued that a reference concentration of 0.15 ppm fluoride in drinking water was more appropriate, and that consequently EPA should find that community water fluoridation at its current much higher 0.7 ppm presents an unreasonable risk of harm to health.

In its September 2024 ruling, the court substantially agreed with this reasoning and ordered EPA to regulate fluoride at its current recommended concentration of 0.7 ppm as an unreasonable risk to human health.

Although EPA is appealing this ruling largely on procedural grounds, it does not appear that EPA is significantly questioning the science on which this ruling was based. The rationale articulated by the court in its decision is sound and is supported by the most robust review of scientific evidence conducted to date. Accordingly, the evidence is increasingly clear that total fluoride concentrations likely to be encountered through both fluoridated municipal water and ingested topical fluoride-containing products (including toothpastes and mouthwashes) carry an unacceptable risk of neurotoxicity and cognitive impairment particularly during development.

Therefore, notwithstanding the current procedural appeal, I believe that EPA may act through its existing authorities under the Safe Drinking Water Act (SDWA), possibly to lower maximum allowable fluoride concentrations, but likely to prohibit the addition of fluoride to municipal water systems altogether. Indeed, on April 7, 2025, EPA announced that it will "expeditiously review new science on fluoride in drinking water", and that upon completion of this review, EPA "will have an updated foundational scientific evaluation that will inform the agency's future steps" under the SDWA.

While further regulatory action by EPA under the SDWA is pending, the court's recent findings give cause for other environmental and public health regulators at state and lower levels, as well as state, county, and municipal governments, to consider similar actions.

In proactive anticipation of EPA action, the states of Florida and Utah have recently prohibited the addition of fluoride to municipal water systems, and over a dozen other states – though not Michigan – are considering the same. Across the nation, many individual municipalities are also considering the same, including here in Michigan.

In my advisory role as medical director, in a memorandum dated June 17, 2025, I recommended that the St. Clair County Health Department adopt proactive local health regulations to formalize such a prohibition across the county under the broad authorities granted to local health departments under the Public Health Code, including MCL 333.2435(d).

On October 15, 2025, following several months of debate and public comment, these recommendations and a draft of this memorandum were endorsed and approved by the Advisory Board of Health.

These are recommendations only and would require formal action by both the health officer and by the county board of commissioners to implement, per the procedures for adoption of local health regulations outlined in MCL 333.2441 and MCL 333.2442. However, without presupposing the outcome, should these recommendations be favorably adopted, this could lead to local health regulations governing the practice of fluoridation in St. Clair County municipal water systems coming into force in the coming months.

In the interim, municipalities in St. Clair County may consider discontinuing fluoridation of their municipal water systems at their discretion. Although correspondence recently obtained through the Freedom of Information Act (FOIA) has revealed that at least one municipality in St. Clair County has been dissuaded from exercising this discretion by coordinated action by the Michigan Department of Health and Human Services (MDHHS) and the Michigan Department of Environment, Great Lakes, and Energy (EGLE), under MCL 333.12721 this authority is retained by the municipality alone and not subject to state influence. Accordingly, in recent weeks, at least one municipality in St. Clair County – namely Kimball Township – has passed a resolution in opposition to the continued fluoridation of its municipal water.

Should your municipality have questions concerning the potential risks and benefits of municipal water fluoridation, I am available to answer any questions or address your governing body or local government officials at a mutually convenient time.

At the recommendation of our Advisory Board of Health, our department has also prepared the enclosed information sheet, which summarizes key scientific findings and regulatory updates, for your review.

Remington Nevin, MD, MPH, DrPH
Medical Director

Enclosure as described

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Fluoridation OVERVIEW

Fluoride has been used to strengthen enamel to prevent tooth decay in children and adults.[1]

Potential Risks:

- Neurodevelopmental Impairment: Ingestion of fluoride, especially during prenatal and childhood development, may increase the risk of impaired learning, memory, and intelligence.[2]

SCCHD Medical Director, Dr. Nevin, states that fluoride is a plausible developmental neurotoxicant and with the concurrence of the St. Clair County Advisory Board of Health, recommends prohibiting its addition to county water systems.[3] Dr. Nevin anticipates that, under the leadership of Robert F. Kennedy, Jr., the U.S. Department of Health and Human Services may soon, likewise, recommend against water fluoridation due to its potential risks and that the EPA may subsequently issue federal regulations enacting such recommendations.[4]

Potential Benefits:

- Strengthened Tooth Enamel: Post-eruptive fluoride supports enamel remineralization and strength.[1,5]
- Tooth Decay Prevention: Fluoride works to prevent enamel demineralization and acid erosion, which can lead to tooth decay.[1,5]

Fluoride is seen as an accessible form of preventative health care with fluoridated water being seen as especially important for people with limited access to dental care and dental treatments.[6]

The American Dental Association supports water fluoridation as an effective way to prevent dental caries.[6]

Drinking Water Regulations

Michigan follows the current EPA and USPHS guidance, recommending 0.7 ppm fluoride in water.[7,8] The EPA sets enforceable limits (MCLs) and non-enforceable guidelines (SMCLs); the SMCL for fluoride is 2.0 ppm.[8] In September 2024, a federal district court ordered the EPA to further regulate fluoridation at the current recommended 0.7 ppm as an unreasonable risk under the Toxic Substances Control Act (TSCA). As of January 2025, the EPA has appealed the court's order largely on procedural grounds, however new regulations are anticipated.[9]

Current Recommendations:

0.7 ppm

New EPA Regulations:

? ppm

History of Fluoridation

In 1945, Grand Rapids, MI became the first city to fluoridate its drinking water.[10] Since then, many U.S. communities adopted the practice of fluoridation, and by 2022, nearly 75% of Americans on public water systems had access to fluoridated water.[11] Since the 2024 court order, Florida and Utah have prohibited the addition of fluoride in drinking water and several other states are considering similar action.[9]

Pros and Cons of Different Fluoride Sources

	Pros	Cons
Using fluoridated toothpaste/mouth rinse[1]	Convenient topical administration that strengthens enamel which can prevent tooth decay.[5]	Purchasing dental products can be cost-prohibitive for low-income households.[12]
Getting varnish/gel at the dentist's office[1]	Topical application typically done one to four times a year with ease to allow fluoride to bind onto enamel and prevent tooth decay.[5]	Barriers such as cost of care, dental insurance coverage, proximity to a dentist, and limited oral health education keep people from accessing preventative dental care.[12]
Drinking local water that has fluoride in it[1,13]	Allows for fluoride to access the salivary system to provide constantly low levels supporting remineralization of tooth enamel.[5,14]	In addition to other potential risks, individual autonomy is limited if public water is fluoridated and added fluoride is typically sourced from industrial byproducts.[12,15]

References

1. NIDCR – Fluoride Fast Facts (PDF)
2. NTP – Systematic Review of Fluoride Exposure and Potential Neurodevelopmental Effects (PDF)
3. Fluoride in St. Clair County Public Water Systems (Memo excerpted from June meeting PDF)
4. PBS - RFK Jr. Will Tell CDC to Stop Recommending Fluoride in Drinking Water
5. Cureus - Role of fluoride in Dentistry: A Narrative Review
6. PHCC - Fluoride: What it is, and Why it Matters for Individual and Community Health
7. USPHS – Recommendation for Fluoride Concentration in Drinking Water
8. EPA – Drinking Water Regulations and Contaminants
9. CRS - The Development of Federal Recommendations and Regulations for Fluoride in Drinking Water
10. NIDCR – The Story of Fluoridation
11. CDC – Statement on the Safety and Effectiveness of Water Fluoridation
12. Preventive Nutrition & Food Science - The Fluoride Debate: The Pros and Cons of Fluoridation
13. CDC – Water Fluoridation FAQs
14. NIH ODS - Fluoride Fact Sheet for Health Professionals
15. Water Fluoridation: A Critical Review of the Physiological Effects of Ingested Fluoride as a Public Health Intervention

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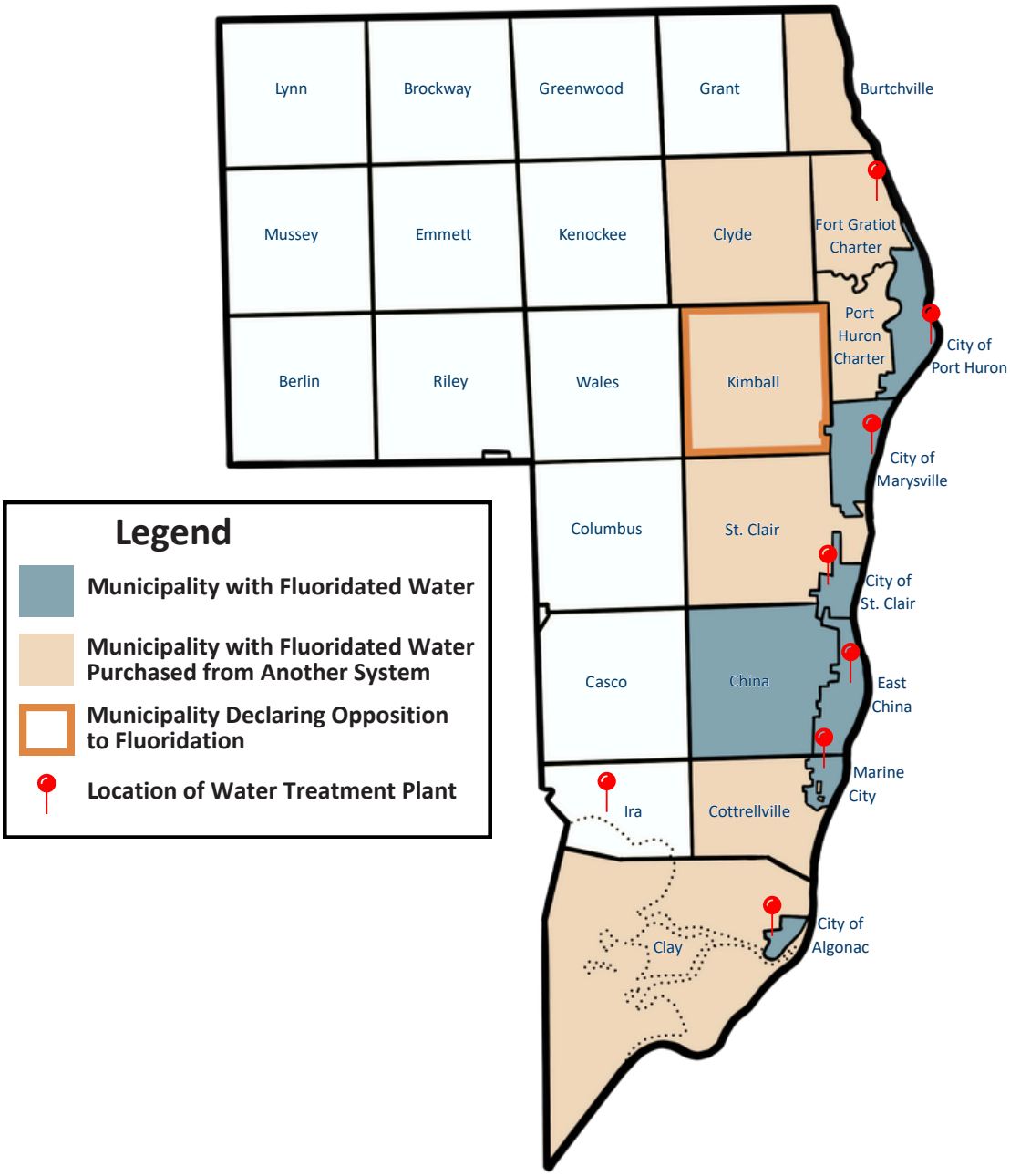
Approved by SCCHD Medical Director, Remington Nevin, MD, MPH, DrPH

St. Clair County Water Sources with Fluoridation

Map of St. Clair County by Township



Notes

1. This map provides approximate coverage of water sourcing. The best source of information on fluoride levels in community water systems is the local water provider (utility).
2. Townships not shaded may source their water from a combination of private wells, city water systems, or other avenues. Ira Township Water Treatment Plant does not fluoridate.
3. Some townships have declared opposition to fluoridation (identified with an orange outline).
4. Burtchville Township water is sourced from Great Lakes Water Authority.
5. Capac, Memphis, Pinewood on the Lake, and Sunrise Mobile Home Park have naturally occurring fluoride levels of 0.6 ppm or above in their water systems.
6. Data provided by the Michigan Department of Health & Human Services (MDHHS). Retrieved on July 23, 2025.

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