From: Council of Canadians, Toronto Chapter <u>torontochapter@gmail.com</u> www.canadians.org

Commentary on <u>Draft Report: Fluoride in Drinking Water</u>, by the Federal-Provincial-Territorial Committee on Drinking Water, Health Canada

Prepared by: Water Issues Committee: Geoffrey Allen; Steve Bodi; Michael Brothers; Tracy Frohlick; Liz Miller; Tara Seucharan; Alice Terpstra.

Submitted by: A. Terpstra, 32 Inniswood Drive Toronto M1R 1E5 aliss@thomaidis.com

Summary:

The Committee has apparently ignored the SEE principle (Social, Economic and Environmental risks/benefits) and accepted scientifically unfounded recommendations from dentists for allowing environmental contamination of Canada's surface waters. The Draft Report must be rejected because it recommends the continued addition of toxic and hazardous silicofluoride acid collected from phosphate fertilizer industry pollution scrubbers to Canada's public drinking waters and ignores the following relevant facts:

- 1. **Fluoride is inherently toxic.** It is cumulative in the human body whether in water for drinking, air for breathing or soil for growing food; silicofluorides used in water fluoridation are most toxic.
- 2. **Dental benefits of fluoride are only from topical use.** Purified topical fluorides are used on older children after teeth have erupted; topical fluorides must not be swallowed because they are systemically toxic; overall health and dental health are adversely affected by increased ingestion of fluoride from any source.
- 3. **Drinking water fluoride is a threat to source water quality.** It is discharged to the environment in sewage effluent, exceeding the Canadian Water Quality Guideline of 0.12 mg/L.

It is unethical for Canada's health agency to set a MAC for drinking water contamination with fluoride at a concentration which is not protective of human health, and use this MAC as a base to justify environmental contamination of **our water commons** with deliberately added, extremely toxic industrial silicofluorides at lower concentration, hidden behind "municipal decisions on water fluoridation". Health Canada should abandon its environmentally and scientifically untenable position and should reduce the MAC for *natural* fluoride in drinking water to 0.5 ppm which is scientifically and ethically defensible in terms of preventing the non dental health effects of thyroid suppression, iodine deficiency disease, rickets, impaired fertility, and IQ reduction.

Excessive ambient fluoride in some drinking waters in a few areas of Canada must be reluctantly tolerated, not emulated. Affected municipalities should be aided through federal grants to reduce fluoride concentration below 0.5 ppm. Deliberate addition of toxic scrubber waste fluoride to drinking waters and downstream environments must end.

The Toronto Chapter of Council of Canadians finds that the FPT Committee's document is unacceptable as a scientific source on which to base public environmental health policy

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and regulation of fluoride content in drinking water due to the inherent falsehood and systemic bias of its fundamental premise that ingested fluoride from any source is safe and beneficial to dental health.

The premise is soundly refuted by evidence excluded from the Draft due to lack of expertise or deliberately rejected by the Committee, indicating a prejudiced information base for making policy. Either way, this is democratically untenable.

The attempt to limit the public's comments to discussion of a MAC of 1.5 ppm for a *natural* contaminant of ground water affecting very few Canadians in order to excuse industrial fluoride pollution in general and protect Health Canada's policy promoting *artificial* water fluoridation that affects the majority of Canadians in urban areas and harms source water quality is also democratically untenable.

It is unconscionable for Canada's public health agency to allow and promote fluoride poisoning of Canada's people and ecosystem through public drinking water. In our responsible democracy, that ought to be providing leadership in a time when billions of humans suffer from a global fresh water crisis, this is intolerable.

Discussion:

Fluoride is an undesirable and toxic contaminant in drinking water like arsenic, lead and aluminum, cumulative in the body and harmful to health of vulnerable groups when ingested at dosage of 0.01 mg/kg/day (NRC 2006). The Draft Report attempts but fails to refute this. Ambient fluoride in well water causes widespread fluorosis disease all over the world including affluent nations. However, industrial waste silicofluorides used for water fluoridation in Canada are most toxic and most likely to increase blood lead levels and tap water lead levels where chlorine disinfectants are also added.

We agree with the criticism made by others that Health Canada's expert panel on fluoride is systemically biased towards artificial fluoridation of all drinking water and lacks expertise in fluoride toxicology, environmental water quality, geology, and non dental health effects. We agree that this panel has misinformed the public, elected representatives and the Committee through false and misleading information, serious scientific errors and omissions of material fact on health and environmental effects of fluoride from natural or industrial origin found or added in drinking and discharge waters.

The Committee members and Health Canada expert panel dentists do not seem to grasp the fundamental fact that drinking water is *borrowed* from the environment whether pumped from the ground or taken from the surface. Water treated for drinking with additional fluoride is added as sewage effluent to the surface waters downstream, often to a different watershed than its origin, where this additional fluoride and its cocontaminants such as arsenic and lead accumulate in the ecosystem, food chain and *source water for the future*.

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As source water should not contain more than 0.12 ppm fluoride according to the Canadian Water Quality Guideline, the acceptance of the current MAC of 1.5 ppm and recommendation of fluoridation of all public drinking water to 0.7 ppm is untenable.

The National Research Council Report of 2006 identified the fluoride dosage of 0.01 mg/kg/day as harmful to thyroid function of iodine-deficient humans and causing irreversible IQ reduction in iodine-deficient children. The current MAC and recommended "optimal" fluoridation result in dosage from water alone that is well in excess of this. However, fluoride intake from food, beverages, salt, workplace and certain medications today greatly exceeds the estimates based on 1940s data used to justify the MAC and the optimal fluoridation level in 2009. The Draft Report is therefore not acceptable as a base for Canada's federal health agency to recommend consumption of water with fluoride of 1.5 ppm as safe without caution, or artificial water fluoridation with industrial waste fluorosilicates at 0.7 ppm as safe and desirable for all Canadians.

The Precautionary Principle should apply to fluoride in drinking water as it does to radionuclides, arsenic, lead and other persistent toxins whether anthropogenic or ambient.

Relevance of these comments to the FPT Committee:

The Council of Canadians is a non-profit organization composed of thousands of ordinary and extraordinary people concerned with preservation and promotion of Canadian sovereignty and transparent, responsible democracy, with particular emphasis on preserving source water quality and public ownership of drinking water, and equitable access to safe drinking water for all. Maude Barlow, Chairperson of the Council of Canadians, served as Senior Advisor on Water to the UN in 2008-2009.

Water-borne disease is a global environmental public health concern. Fluoride poisoning is considered a water-borne disease, as the vast majority of humans with systemic fluorosis disease acquire the condition from drinking water.

The world's most populous nations, India and China, experience serious endemic fluoride poisoning that includes non dental effects of thyroid suppression, iodine deficiency, anemia, delayed mental and physical development of children, lowered IQ of school children and gastric malabsorption of nutrients related to both industrial pollution and natural ground water contamination with fluoride at levels below Canada's MAC of 1.5 ppm. India's MAC for ambient fluoride in water is 1 ppm and its drinking water policy is "the less fluoride the better, as fluoride is injurious to health." (Susheela, 2007. A Treatise on Fluorosis).

The Committee's failure to include these international examples of non dental harm caused by chronic fluoride ingestion below 1.5 ppm fluoride in water to millions of the world's children is representative of the Draft's entirely false premise that fluoride pollution of air, water and soil from any source provides fluoride that confers only dental benefit to Canadians and therefore should continue unabated – but renamed "public health policy" in the form of water fluoridation. Council of Canadians Toronto Chapter rejects this as morally and politically untenable.