



INFORMATION REPORT

TO:	Mayor and Members Board of Health
COMMITTEE DATE:	September 18, 2017
SUBJECT/REPORT NO:	Water Fluoridation Update (BOH08024(d)) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Dr. Ninh Tran (905) 5462424, Ext. 7113
SUBMITTED BY & SIGNATURE:	Dr. Ninh Tran, MD MSc CCFP FRCPC Associate Medical Officer of Health Public Health Services

Council Direction:

On April 12, 2017, Council directed that the “Correspondence from Summer MacGregor, Legislative Assistant, Peel Region regarding a resolution respecting the steps Peel Region will undertake while they wait for the Province’s response to their request regarding water fluoridation. Be received and referred to the Medical Officer of Health for review and an information report to the Board of Health.

Information:

What Peel’s report described:

Peel’s Medical Officer of Health (MOH) was asked to report on different alternatives to current fluoridation practices in Peel Region (Appendix A) – Water Fluoridation Update). Peel’s report re-iterated that fluoridation of community drinking water remains to be a safe and effective population approach to preventing dental caries.

The report presented four(4) options:

- 1) Continue fluoridation with the existing additive and processes
- 2) Continue fluoridation, but change the additive to one derived from Calcium Fluoride
- 3) Discontinue fluoridation
- 4) Provide a fluoride varnish program

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Peel's Medical Officer of Health recommended option #1, to continue with fluoridation as currently practiced. Option #2 involved changing the fluoride additive from hydrofluorosilicic acid (HFSA) derived from calcium fluoride rather than HFSA derived from phosphorous rock as it had a lower residual arsenic and lead level. Peel's MOH was also supportive of option #2 as it would "maintain population oral health protection provided by community water fluoridation", though it would result in additional annual operating costs of \$40K. Peel's report did not support discontinuing fluoridation given the expected negative health, social and economic consequences. The report did not recommend providing a fluoride varnish program instead of fluoridating drinking water as it would be less cost effective and less equitable. However, a fluoride varnish program could be used to supplement current practice of fluoridating drinking water.

The report states that Peel Region fluoridates drinking water to a level between 0.5 to 0.8 ppm. After contacting Peel Region directly, they clarified that their average level was at least 0.6 ppm. 0.6ppm is the current level at which Hamilton fluoridates its drinking water.

Public Health Services (PHS) recommends continuing with its current fluoridation practice of fluoridating its drinking water to a target of 0.6 ppm as it is a safe, effective and equitable population approach to preventing dental caries. In July 2017, PHS conducted an updated systematic review of the of the peer-reviewed medical literature since the last PHS report on safety and effectiveness of water fluoridation that was presented at the April 26, 2011 Board of Health meeting (BOH08024(b)). This updated review of the literature showed that fluoridation of drinking water continues to be safe and effective at the current fluoride level of Hamilton's drinking water.

Should Council want to change the HFSA fluoride additive to one derived from calcium fluoride, this would result in additional costs of approximately \$20K-\$25K per year. However, Hamilton's municipal drinking water system already meets the Ontario Drinking Water Standards, including arsenic and lead levels that are both are undetectable (<0.001mg/L) levels.

Appendices Attached:

Appendix A to Report BOH080249 – Peel Community Water Fluoridation Committee
Agenda - 23-FEB-17

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