

**For Information Only**

## **FLUORIDATION OF GREATER SUDBURY MUNICIPAL WATER SUPPLIES - INFORMATION UPDATE**

### **RECOMMENDATION**

For Information Only

### **BACKGROUND**

Safe, high quality drinking water is essential to the public health of everyone in Greater Sudbury. In many Ontario and Canadian communities including Greater Sudbury, fluoride is added to the municipal water supply to promote oral health. Poor oral health has been linked to other chronic diseases such as diabetes and heart disease. Delivery of fluoride through potable water systems provides a cost effective method of providing preventive fluoride protection to the benefit of the entire serviced population.

The practice is seen by some members of the public as controversial and therefore draws frequent questions from constituents. This report has been prepared in response to a request by Council at the Finance and Administration Committee held March 28, 2017 to provide information to Councilors to enable them to respond to constituents questions about fluoridation in Greater Sudbury.

### **CGS Current Situation**

Municipal water supplies operated by Greater Sudbury have contained fluoride additives as part of their treatment programs since 1952. At the direction of Council, fluoride is added to all municipal water supplies in Greater Sudbury to promote oral health as it has been endorsed by Health Canada and the Sudbury & District Health Unit (SDHU) as safe and effective. Despite this and other support for fluoridation from organizations such as the Canadian Dental Association (CDA) and Public Health Ontario (PHO) as well as the American Dental Association (ADA), the practice of fluoridating municipal water supplies continues to be the subject of ongoing public debate with strong opinions voiced by advocates of both anti and pro fluoridation positions.

In November of 2011 an information report was prepared by Community Development Department and was presented to the Finance Committee. The report provided a detailed assessment of the financial implications and benefits to citizens of Greater Sudbury of fluoridating their water supplies.

<http://agendasonline.greatersudbury.ca/index.cfm?pg=feed&action=file&agenda=report&itemid=4&id=440>

## **Operational Tactics**

Currently all municipally supplied residents in Greater Sudbury receive fluoridated water. Greater Sudbury water systems feed a National Sanitation Foundation (NSF) approved liquid fluoride product in the range of 0.5 – 0.8 mg/L which is within the legislated limits. All CGS systems are monitored by provincially certified water treatment operators 24 / 7 from the central control room at the Wanapitei WTP. Data from continuous monitoring instruments is validated through regular calibrations against laboratory test results and viewed via the Supervisory Control and Data Acquisition (SCADA) System. The system provides continuous trending capability of the level of fluoride applied to the water supply as well as alarms for each site to alert operators to high and low levels. The system also includes manual and automatic shut offs should variances be detected.

## **Other Municipalities**

Recently there have been several well publicized situations where municipalities have discontinued fluoridation however 2016 statistics show that in Ontario over 67 % of the population lives in communities with fluoridated water systems.

In 2011, the City of Calgary, Alberta stopped adding fluoride to the drinking water citing potential cost savings. Several recent news items have indicated that the fluoridation debate has been refueled in that community by stories about rising rates of tooth decay among children in Calgary since fluoride was removed from the water supply.

<http://www.cbc.ca/news/canada/calgary/calgary-fluoride-citizen-group-election-1.4306198>

<http://www.ctvnews.ca/canada/worried-parents-dentists-pushing-for-fluoride-in-calgary-water-1.3605897>

Staff will continue to collaborate closely with oral health staff from the Sudbury and District Health Unit and monitor information from other public health authorities to stay abreast of developments and communicate any new developments or emerging trends to Council.

## **Relationship to Corporate Strategic Plan**

Providing fluoridated drinking water supports the 'Quality of Life and Place' pillar of the Corporate Strategic Plan by providing a program or service designed to improve the health and well-being of our youth, families and seniors.

## **Financial Implications**

Adding fluoride to the water supply creates financial implications for both operating and capital budget areas.

Operationally, costs vary from year to year given the variability of production rates and maintenance requirements but range in the order of \$100,000 to \$120,000 annually. These costs include purchasing chemical, operational and maintenance labour, parts and materials, as well as medical surveillance for staff. Operational costs have been integrated into budget submissions.

Capital and asset management costs range to over \$2.5M over a multi-year period to provide funding for chemical feed room updates. Although some facilities have been updated, some of the older water supply facilities will require improvements to bring them to provincial standards established for such facilities (ie. mechanical ventilation and other support systems upgrades). Capital costs will be factored into future capital budget submissions and integrated into facility upgrade projects.

## **REPORT SUMMARY**

This report provides information regarding the current state of fluoridation of CGS municipal water supplies including the financial implications of adding fluoride. The report also provides context on the public health benefits of fluoridation and fluoridation issues in other municipalities.

## References

American Dental Association. (n.d.). *ADA Fluoridation Policy*. Retrieved 09 26, 2017, from American Dental Association: <http://www.ada.org/en/public-programs/advocating-for-the-public/fluoride-and-fluoridation/ada-fluoridation-policy>

Canadian Dental Association. (2012, 03). *CDA Position on Use of Fluorides in Caries Prevention*. Retrieved from Canadian Dental Association: [https://www.cda-adc.ca/en/about/position\\_statements/fluoride/](https://www.cda-adc.ca/en/about/position_statements/fluoride/)

Gasparini, C. (2011, 11 24). *Fluoridation of the city of Greater Sudbury's Public Water System*. Retrieved from Greater Sudbury Finance Committee: <http://agendasonline.greatersudbury.ca/?pg=agenda&action=navigator&lang=en&id=440&itemid=4926>

King, A. (2011, 04 04). *Drinking Water Fluoridation*. Retrieved 10 02, 2017, from Ontario Ministry of Health and Long-Term Care: [http://www.health.gov.on.ca/en/news/bulletin/2011/hb\\_20110404\\_2.aspx](http://www.health.gov.on.ca/en/news/bulletin/2011/hb_20110404_2.aspx)

King, A. (2011, 04 04). *Statement from Dr. Arlene King, Chief Medical Officer of Health for Ontario*. Retrieved from FluorideAlert.org: <http://fluoridealert.org/news/statement-from-dr-arlene-king-chief-medical-officer-of-health-for-ontario/>

Smith, J. (2016, 10 03). *Updated Review of Evidence on the Effectiveness and Safety of Community Water Fluoridation*. Retrieved from Region of Peel: <http://www.peelregion.ca/council/subcomm/cwfc/2010s/2016/>

Sudbury District Health Unit. (2016, 02). *Water Fluoridation Toolkit*. Retrieved from [https://webcache.googleusercontent.com/search?q=cache:6y56sST\\_AJcJ:https://www.nbdental.com/fluoridation/assets/Water-Fluoridation-Toolkit-2016-02-EN.pdf+&cd=2&hl=en&ct=clnk&gl=ca](https://webcache.googleusercontent.com/search?q=cache:6y56sST_AJcJ:https://www.nbdental.com/fluoridation/assets/Water-Fluoridation-Toolkit-2016-02-EN.pdf+&cd=2&hl=en&ct=clnk&gl=ca)