

## Request for Decision

### Water Wastewater Drinking Water Quality Management System Report

Presented To: Operations Committee

Presented: Monday, Jul 06, 2015

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Type: Routine Management Reports

### Recommendation

THAT the City of Greater Sudbury endorses the Operational Plan for the Drinking Water Quality Management System (DWQMS), and the Quality Policy that supports the Quality Management System (QMS), that is maintained by the Infrastructure Services department's Water & Wastewater Services Division (WWS).

### Finance Implications

There are no financial implications with endorsement of the Drinking Water Quality Management System – neither the Operational Plan nor the Quality Policy.

## Background

As legislated under the Safe Drinking Water Act, 2002, the Ministry of the Environment and Climate Change (MOECC) requires that municipalities, as Operating Authorities of drinking water systems (DWS), maintain an accredited QMS in order to be allowed to provide drinking water to residents. WWS has and maintains an accredited QMS for all six of the City of Greater Sudbury's (CGS) DWS. This accreditation provides for the licensing of those systems under the MOECC's new Municipal Drinking Water Licensing Program (MDWLP). The CGS's six licensed DWS's are:

- The Sudbury DWS, comprised of the Wanapitei and David St. drinking water plants, and the Garson wells, plus the distribution and storage system that connects them;
- The Valley DWS, including all eleven (11) Valley and two (2) Capreol wells plus the distribution and storage system;
- The Dowling DWS, comprised of two wells and a distribution and storage system;
- The Falconbridge DWS, consisting of three wells plus the distribution and storage system;
- The Onaping-Levack DWS, comprised of three wells and the distribution system connecting both

#### Signed By

##### **Report Prepared By**

Jane Dupuis  
Quality Management Systems Officer  
*Digitally Signed Jun 18, 15*

##### **Division Review**

Nick Benkovich  
Director of Water/Wastewater Services  
*Digitally Signed Jun 19, 15*

##### **Recommended by the Department**

Tony Cecutti  
General Manager of Infrastructure Services  
*Digitally Signed Jun 19, 15*

##### **Recommended by the C.A.O.**

Bob Johnston  
Interim Chief Administrative Officer  
*Digitally Signed Jun 23, 15*

communities; and

- The original Vermilion DWS servicing the Walden area with a distribution-only system.

A DWQMS serves as one of several of multiple barriers of protection that ensure the safety of the drinking water supply. A QMS is a system of policies and procedures that describe how we do what we do to ensure a sufficient, safe and aesthetically pleasing supply of drinking water to the citizens of CGS. An Operational Plan contains a series of documents that describe how WWS complies with the requirements of the standard. Keeping the Mayor, Council and Senior Management Team (SMT) informed about the health of the QMS fulfills one of those requirements, and ensures the maintenance of the required accreditation.

In January 2009, Council was asked to and did endorse the Operational Plan which is maintained by WWS to describe the QMS. In July 2008, Council also adopted the Quality Policy which is central to this system. WWS personnel annually review both the Operational Plan and the Quality Policy in order to maintain them as current and correct. Both the Operational Plan and the Quality Policy are available online for interested parties, both internal and external.

### **Communication of Key Indicators**

Information about the operation of the QMS in the following areas is required to be shared with the Owner – the Corporation of the City of Greater Sudbury as represented by the Mayor, Council and SMT:

- “the description of the organizational structure including respective roles, responsibilities and authorities”;
- “the relevant aspects of the Quality Management System”;
- “the findings of the review”: “the annual review of the adequacy of the infrastructure necessary to operate and maintain the subject system”;
- “sampling, testing and monitoring results”; and
- “the results of the management review, the identified deficiencies, decisions and action items”. (all quoted directly from the DWQMS)

Since several other annual reports are made to Council that fulfill some of these requirements, this report will serve to inform Council about the Division’s organizational structure, as well as the results of several reviews carried out annually, in order to inform Council’s decision concerning endorsement of the Operational Plan and Quality Policy: Management Review, internal auditing, and Risk Assessment update.

On April 22nd, 2015, key personnel involved in managing the DWS operated by the WWS met to evaluate 2014 indicators showing how well the QMS has been implemented, as well as how effectively it’s operating – QMS KPI’s, in effect. Reviewers considered topics identified in the standard as well as others added over the years to provide more information. Each input category is reviewed in order to identify if, where and when improvements to the QMS and its procedures are required in order to correct identified problems, to obtain efficiencies or to improve operations from a quality standpoint. Several opportunities for improvement were noted, but the final determination of the management personnel in attendance is that the QMS continues to be suitable, adequate, and effective to the needs of CGS’s DWS’s.

In December 2014, an internal audit occurred, whose purpose was to obtain sufficient appropriate evidence to confirm whether or not the Operational Plan substantively satisfies the MOECC’s requirements for the elements of the DWQMS. It was reported that the Operational Plan, as updated to November 2014, substantively meets MOE requirements, achieving a score of 85%. Several minor Opportunities for Improvement were identified in document and records control; communications;

maintenance; and continual improvement.

In August 2014, WWS's Registrar for the DWQMS performed the first re-accreditation audit of the QMS. One minor non-conformance was reported – in the area of evaluation of maintenance effectiveness (which was subsequently corrected) – and CGS received new Accreditation Certificates in October 2014 for all six DWS's.

In the spring of 2014, the Risk Assessments that were initially undertaken in 2008 for all of the City's DWS's were reviewed with key Water section personnel. In general, these are some of the more common moderate-to-high ranked risks: backflows introducing contaminants into the distribution system; watermain breaks (in nearly all systems) reducing water for distribution, and introducing potential contaminants; and failure of some submerged air valves. Some systems are also reporting slightly higher rankings with potential hazards impacting the systems' sources, like blue-green algae in Lake Ramsey, and failure of the aquifer to recharge due to droughts. Some of these hazards will continue to show as fairly high, although almost no hazards came within the City's "high" ranking of 45 – 125.

Work has been undertaken internally to mitigate the effects of these highly-ranked risks, like the implementation of a Source Protection Plan, and work on a Backflow Prevention by-law. Staff also continues to closely monitor important indicators, and maintains a state of emergency preparedness as appropriate to deal with some of the impacts if/when they occur.