

COMMITTEE OF THE WHOLE – JANUARY 17, 2012

DRINKING WATER QUALITY MANAGEMENT SYSTEM TOP MANAGEMENT REVIEW AND CONFIRMATION OF CONTINUED FULL ACCREDITATION AND 100% INSPECTION RATING

Recommendation

The City Manager, the Commissioner of Engineering and Public Works, the Director of Public Works, the Director of Engineering Services and the Director of Development/Transportation Engineering, which for the purposes of the City's Drinking Water Quality Management System are collectively referred to as "Corporate Top Management", recommend that the following report be received for information.

Contribution to Sustainability

The provision of safe drinking water to residents and businesses is key to the vitality and sustainability of the City.

Economic Impact

There is no direct economic impact as a result of this report.

Communications Plan

The public reporting of the annual top management review, confirms that the Vaughan drinking water systems are professionally managed, ensuring that the quality of Vaughan's drinking water meets or exceeds provincial standards.

Staff will be preparing a media release concerning the City's inspection rating and accreditation status.

Purpose

The purpose of this report is to:

- Advise Council, as the Owners of the Vaughan Drinking Water Distribution System and the Kleinburg Water Distribution System, as to the status of the Quality Management System's (QMS), suitability, adequacy and effectiveness;
- Confirm that the City has maintained its fully accredited status by the Canadian General Standards Board;
- Confirm the 100.00% rating given to the City as a result of the Ministry of the Environment's annual Inspection; and,
- Demonstrate Vaughan's compliance with part of the forthcoming Statutory Standard of Care obligations.

Background - Analysis and Options

The City's Operational Plan Procedure No. QMS-20, as detailed in the City's Quality Management System Operational Plan, prescribes an annual management review by Operational Top Management. The purpose is to review the overall suitability, adequacy and effectiveness of the Quality Management System.

For the purposes of QMS, Operational Top Management consists of the Director of Public Works, the Manager of Environmental & Technical Services, the Supervisor of Water, and the Supervisor of Compliance & Training.

1. Summary of Operational Top Management Review:

The Operational Top Management review was held on September 20, 2011. During this session, 21 items were reviewed (as outlined in element 20 "Management Review", of the Operational Plan). Decisions and actions were determined, along with responsibility and due dates assigned.

Operational Top Management reviews must be held annually to re-visit the plan, and to identify and respond to any applicable changes.

Deficiencies Identified:

No deficiencies were identified.

Decisions Made:

Minor changes to the reporting forms were identified. These, and other minor administrative changes, have been, or will be, done by staff. Any revisions to the plan are circulated to the City Clerk. The Clerk maintains an official copy of the City's Drinking Water Quality Management Standard Operational Plan.

Action Items:

To ensure the on-going maintenance of the Operational Plan and on-going operational effectiveness, the following actions were identified:

- Revising documents as mandated;
- Scheduling the 2012 meetings with Water staff to discuss continuous improvements;
- Opportunities For Improvement (OFIs), identified through the internal audit that took place in April to be evaluated and followed up on;
- Performing mock water emergencies;
- Continuing to provide and make accessible training opportunities for all Operators; and,
- Continuing development of a records management program.

These activities have been assigned to appropriate Public Works staff to complete, and a compliance monitoring plan is being developed. It will be reported on next year.

Other QMS Issues Identified:

A number of operational Opportunities For Improvement were noted during the April internal audit. Recommendation included:

| Element | Comments | Status |
|----------------|---|--|
| 3 | - Suggested Council review "Standard of Care". | - Report to Council to be done Q1 2012 |
| 5 | - Maintain the single logbook for 2011 as it worked well in 2010. - Include the chlorine limits (free and total) for both the Vaughan and Kleinburg system as reminders for operations staff. - Place an asterisk beside phone numbers that have recently been updated in the | - Complete - Complete - Advised Dispatch of this for future updates to the handbook. |

| | | |
|------------------|---|--|
| | handbook for easier reference | |
| 7 & 8 | - Undertake a training session with operations staff to review the revised critical control points. - Vaughan Fire & Rescue Services should notify Public works when they are responding to a fire. | - Completed - In place |
| 10 | - Develop procedures for Records Clerk position to assist training future personnel on job requirements. | - In process of being developed |
| 11 | - Consider having a dispatcher available 24/7 during busy winter months. | - Under review |
| 15 | - Operational staff suggested a direct line to Dispatch would assist in responding faster to issues that arise in the field. | - No action being taken as alternate communication methods exist |
| 17 | - Annual calibration of pH meters should be included as a preventative maintenance item so that a Work Order would remind staff of this requirement. Similarly, a recurring event in the staff's Outlook calendar would work. | - Completed in Outlook Compliance Calendar |
| 18 | - Recap some of the key emergency procedures with operations staff. | - Complete |

Following the Operational Top Management review, Corporate Top Management reviewed the outcome of the Operational Top Management meeting.

2. Canadian General Standards Board Accreditation Status

As part of maintaining its accreditation, each year, Public Works staff must submit documentation to the CGSB for review and audit. The auditors issued 5 minor non-conformance reports. These minor non-conformances, and corrective actions taken, are listed below:

| Issue Raised | Corrective Action |
|--|---|
| Discussion as to how obsolete documents are disposed could not be found. | -Modify QMS-05 to clarify how these are dealt with. |
| No reference on how to respond to critical control point 2 for contamination | -The response is in the Operators' handbooks and a copy of the standard operating procedures was provided to CGSB. -Table 08-01 to be modified to show some standard operating procedures, as well as chlorine control limits. |
| No reference to sampling and monitoring under the most challenging conditions was noted. | -Revise QMS-16 to include description of "challenging conditions" -Provided an example of maintaining chlorine levels in a new subdivision as a "challenging condition". |
| A list of potential emergency situations, communications protocol, or emergency contact list could not be found. | -The Public Works' Water Distribution Emergency Plan was submitted to CGSB in 2008. The information was re-sent. |
| There is no evidence that the September 23, 2010 management review outlining deficiencies and actions was communicated to the Owner. | -Forwarded a copy of Form 20-02 which was received by Committee of the Whole in April 12, 2011, and then adopted by Council on May 3, 2011. |

On November 10, 2011, the CGSB responded to the 5 Corrective Action Records submitted by the City, and indicated they were satisfied with the responses, and the City remains fully accredited.

3. Ministry of Environment Annual Inspection

On June 16, 2011, the Ministry of the Environment conducted its annual inspection. As part of the inspection, water samples are taken, logbooks are reviewed, and procedures checked. All water samples taken during the review period met the Ontario Drinking Water Standards (O. Reg. 169/03).

Due to the positive results of previous years' Lead Testing Programs, both the Vaughan and Kleinburg Distribution Systems have been granted regulatory relief from sampling. For Kleinburg, only 4 samples have to be taken every three years, with alkalinity and pH being analyzed annually. For the Vaughan Distribution System, 10 samples are to be taken every three years, with alkalinity and pH being analyzed annually.

The Ministry also is looking to see the City's actions with respect to back-flow prevention. Due to the potential for water contamination as a result of back-flow from high risk industries, the Ministry is pushing for back-flow devices to be installed, and for local by-laws to be enacted covering the installation and maintenance of such devices. Some municipalities already have such a program in place. Public Works staff are reviewing and updating the Water By-law, and back-flow prevention devices are proposed to be a part of the new by-law.

For the period reviewed, both the Vaughan Distribution System and the Kleinburg Distribution System received perfect 100.00 % ratings.

Relationship to Vaughan Vision 2020

The Quality Management System Policy states:

As the owners and operators of the City of Vaughan's water distribution systems, we are committed to:

- *Providing safe drinking water to our residents and businesses*
- *Complying with applicable legislation and regulations as related to the provision of safe drinking water*
- *Implementing and continually improving the effectiveness of our Quality Management System*

The City's quality management policy has been developed in accordance with the objectives of the Vaughan Strategic Plan, specifically to: Promote Community Safety, Health and Wellness; Demonstrate Excellence in Service Delivery; and, Manage Corporate Assets.

Regional Implications

Water delivery in York Region is a two-tier system, with the Region of York supplying water to the local municipalities. The local municipalities then distribute the water to their residents and businesses.

There are no regional implications as a result of this report.

Conclusion

As required, the annual Management Review has taken place, and the findings and actions are presented in this report. Continuous improvement is a part of the plan, and the "Opportunities For Improvement" identified by the internal and external audits are a means for such improvement.

The surveillance audit performed earlier this year by the Canadian General Standards Board identified 5 minor non-conformances. These were successfully addressed, and the City remains fully accredited.

The 100.00 % inspection rating given by the Ministry of the Environment for the Vaughan and Kleinburg Distribution Systems demonstrates to the public that the City is maintaining and operating the water distribution systems in accordance with the legislation, and the quality of water meets or exceeds provincial standards.

Attachments

Not Applicable.

Report prepared by:

Brian T. Anthony, Director of Public Works Ext 6116

Respectfully submitted,

Clayton D. Harris, CA
City Manager

Paul Jankowski, P. Eng.
Commissioner of Engineering & Public Works

Brian T. Anthony, CRS-S, C.Tech
Director of Public Works

Jack Graziosi, P. Eng.
Director of Engineering Services

Andrew Pearce, CET
Director of Development/Transportation Engineering