

- 1. 2014 DRINKING WATER QUALITY MANAGEMENT
SYSTEM ANNUAL REPORT**
- RAPPORT ANNUEL 2014 DU SYSTÈME DE
GESTION DE LA QUALITÉ DE L'EAU POTABLE**

COMMITTEE RECOMMENDATIONS

That Council:

- 1. Endorse the Operational Plan, and;**
- 2. Receive the 2014 Drinking Water Quality Management System Annual Report.**

RECOMMANDATIONS DU COMITÉ

Que le Conseil municipal :

- 1. Entérine le plan d'exploitation, et ;**
- 2. Prenne connaissance du Rapport Annuel du système de gestion de la qualité de l'eau potable.**

DOCUMENTATION / DOCUMENTATION

- 1. Acting Deputy City Manager's report, City Operations, dated 28 September 2015 (ACS2015-COS-ESD-0017).**

Rapport de la Directrice municipale adjointe par intérim, Opérations municipales, daté le 28 septembre 2015 (ACS2015-COS-ESD-0017).
- 2. Extract of Draft Minute, 5 October 2015 (follows French version of report - currently available in English only).**

Extrait de l'ébauche du procès-verbal, le 5 octobre 2015 (suit la version française du rapport - en ce moment, disponible uniquement en anglais).

**Report to
Rapport au:**

**Environment Committee
Comité de l'environnement
5 October 2015 / 5 octobre 2015**

**and Council
et au Conseil
14 October 2015 / 14 octobre 2015**

**Submitted on September 28, 2015
Soumis le 28 septembre 2015**

**Submitted by
Soumis par:
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Ward: CITY WIDE / À L'ÉCHELLE DE LA VILLE File Number: ACS2015-COS-ESD-0017

SUBJECT: 2014 Drinking Water Quality Management System Annual Report

**OBJET: Rapport annuel 2014 du système de gestion de la qualité de l'eau
potable**

REPORT RECOMMENDATIONS

That the Environment Committee and Council:

- 1. Endorse the Operational Plan, and**
- 2. Receive the 2014 Drinking Water Quality Management System Annual Report.**

RECOMMANDATIONS DU RAPPORT

Que le Comité de l'environnement et le Conseil municipal :

- 1. Entérinent le plan d'exploitation, et**
- 2. Prennent connaissance du Rapport Annuel du système de gestion de la qualité de l'eau potable.**

BACKGROUND

On November 28, 2008, City Council endorsed the City's Quality Management System (QMS) for Drinking Water Services (DWS), which is documented by the Operational Plan (ACS2008-ICS-WWS-0020) and is in conformance with Ministry of Environment and Climate Change (MOECC) Standards. However, as a matter of Best Practice, it is recommended that the Operational Plan be endorsed after each election of a new Municipal Council. It is also expected that the MOECC will be updating the Standards that will require the Operational Plan to contain a current written endorsement of its content by the Owner, which in the case of the City of Ottawa is City Council.

Specifically, the Operational Plan contains the following QMS policy.

The City of Ottawa is committed to consistently deliver high quality drinking water to the people of Ottawa. In particular, the organization is committed to:

- Provide a reliable supply of safe drinking water to the consumer.
- Meet or exceed applicable legislation and regulations.
- Implement, maintain and continually improve the Quality Management System, infrastructure and technology.
- Deliver excellent customer service through responsiveness, accountability and innovation.

One of the recommendations of this report is for Council to endorse the Operational Plan (Document 2).

The Operational Plan also requires that the results from the annual Management Review are conveyed to the Owner (City Council). The main purpose of this report is to provide Council, as the Owner of the municipal drinking water systems, with an update on the implementation and the performance of the QMS in relation to the City's Drinking Water Systems.

Council, as the Owner of drinking water systems, has a number of duties and responsibilities under the *Safe Drinking Water Act (2002)*, which are described in sections 11, 13, 16 and 17 of the Act. The duties of the Owner related to the Standard of Care are described under section 19, which came into force on January 1, 2013. A Technical Briefing of Council was organized by staff on October 5, 2015 to review the Owner's duties and responsibilities under the Act. Justice O'Connor commented in his 2002 report of the Walkerton Inquiry that municipalities who had an accredited Operating Authority and an Operational Plan that meets the Drinking Water Quality Management Standards (DWQMS) would be a significant step in meeting the Standard of Care under the Act.

One of the primary tools that the Owner has in place to satisfy the Standard of Care under the Act are that Municipal Drinking Water Licences are in place for all its drinking water systems.

The elements of each Licence include:

- A permit to take water;
- A drinking water works permit;
- An operational plan;
- A financial plan; and
- An accredited operating authority.

The City of Ottawa has current and valid licences for all 7 of its drinking water systems:

- Central System (Britannia and Lemieux water purifications plants and water distribution system;
- Carp Communal Well System;

- Vars Communal Well System;
- Kings Park (Richmond) Communal Well System;
- Munster Hamlet Communal Well System; and
- Shadow Ridge (Greely) Communal Well System.

It should be noted that Shadow Ridge is not owned by the City, but the City of Ottawa is the Operating Authority.

The City of Ottawa was successfully re-accredited as an Operating Authority on September 4, 2014.

DISCUSSION

As a requirement of the Operational Plan, a comprehensive review of the QMS must be undertaken annually by Top Management. Top Management is defined as a person, persons, or a group of people at the highest management level within the Operating Authority that makes decisions respecting the QMS and recommendations to the Owner respecting the drinking water systems. At the City of Ottawa, the leader of Top Management is the General Manager of the Environmental Services Department.

There are a total of 16 topics that must be considered in the annual review (Table 1). This report will provide an update only on those items that require attention. All other items not discussed have either been reported to Council previously or the items have been reviewed and determined to be in compliance with all regulations or in conformance with the Operational Plan.

Overall, the City of Ottawa has implemented its Operational Plan successfully. The Operating Authority meets its regulatory requirements and is in conformance with its Operational Plan. The most recent MOECC inspections have rated all drinking water systems at 100% for the sixth year in a row for municipally owned drinking water systems. Each year, a third-party accreditation body conducts an external audit of the Operational Plan. The City of Ottawa has also maintained perfect external audits and has been successfully re-accredited as an Operating Authority. All these efforts reinforce the fact that the City of Ottawa produces and delivers some of the best quality and safest drinking water in the world.

A full list of recommended action items as a result of the 2014 Management Review can be found in Document 1.

Table 1 List of items for annual review that will be discussed in this report

QMS Topic	Summary provided in this report (yes or no)
Incidents of regulatory non-compliance	No issues (ACS2015-COS-ESD-0003)
Incidents of adverse drinking water tests	No issues (ACS2015-COS-ESD-0003)
Deviations from critical control point limits and response actions	No issues
Efficacy of the risk assessment process	No issues
Results of audits (internal and external)	No issues
Results of relevant emergency response testing	No issues
Operational performance	No issues
Raw water supply and drinking water quality trends	Yes – requires discussion
Follow-up action items from previous management reviews	Yes – requires discussion
Status of management action items identified between reviews	No issues
Changes that could affect the QMS	No issues
Summary of consumer feedback	No issues
Resources needed to maintain the	Yes – requires discussion

QMS Topic	Summary provided in this report (yes or no)
QMS	
Results of the infrastructure review	No issues
Operational plan currency, content and updates	No issues
Summary of staff suggestions	No issues

Raw water supply and drinking water quality trends

There is evidence of an increasing trend in nitrate concentration in the ground water wells in Shadow Ridge. If the trend continues at the same rate, the wells would reach the drinking water maximum acceptable concentration of 10.0 mg/L in approximately 8 to 10 years. This risk has also been captured in the most recent City of Ottawa Corporate Risk Profile Report.

As a result of this concern, the General Manager of Environmental Services (ESD) has notified the General Manager of Planning and Growth Management (PGM) of the concerns over the nitrate concentrations and their increasing trend. At the request of ESD, PGM has notified the owner of the well system that an acceptable solution to the current situation must be reached by the City and the developer before further development or lifting of any reserve can be authorized by the Planning Authority.

Follow-up action items from previous management reviews

An outstanding Priority 1 action item relates to the adoption by Council of a Backflow Prevention Program and by-law. Staff submitted a report to Environment Committee on October 5, 2015 (ACS2015-COS-ESD-0013) seeking approval of the implementation process and the parameters for a Backflow Prevention Program. If approved, staff will submit a report detailing the implementation strategy for Council approval in Q1 2016.

Resources needed to maintain the QMS

After the establishment of the quality management system, employees have been challenged with the management and maintenance of new or enhanced processes and documentation. Top management previously identified the need for additional technical resources in order to support these efforts. By the end of 2014, an additional 4 technical resources were assigned to support the QMS in updating procedures and in ensuring the completion of corrective actions identified as part of the continuous improvement cycle of the operation.

An Asset Management Unit and a Project Implementation Unit in ESD's Environmental Engineering Branch (EEB) have been put in place to ensure high service level delivery across ESD in Asset Management and Infrastructure replacement and renewal plans of its facilities assets. Progress has been made in 2014, however, Capital Infrastructure needs continue to surpass the department's ability to complete capital programs. EEB continues to evaluate the implementation of the Capital Project Implementation Program by reviewing its performance as set out in the Operational Plan. The implementation of a project prioritization framework in 2015 will assist the Department in determining resource priorities.

RURAL IMPLICATIONS

There is evidence of an increasing trend in nitrate concentration in the ground water wells in Shadow Ridge. The owner of the Shadow Ridge Communal Well System is working to identify an acceptable solution before further development or lifting of any reserve can be authorized by the Planning Authority.

CONSULTATION

Public consultation or notification is not required as this report is administrative in nature.

COMMENTS BY THE WARD COUNCILLOR(S)

This is a City-wide report.

ADVISORY COMMITTEE(S) COMMENTS

This section is not applicable.

LEGAL IMPLICATIONS

There are no legal impediments to the approval of the recommendations of this report.

RISK MANAGEMENT IMPLICATIONS

There is evidence of an increasing trend in nitrate concentration in the ground water wells in Shadow Ridge. The owner of the Shadow Ridge Communal Well System is working to identify an acceptable solution before further development or lifting of any reserve can be authorized by the Planning Authority.

ASSET MANAGEMENT IMPLICATIONS

There are no asset management implications associated with this report.

FINANCIAL IMPLICATIONS

There are no financial implications associated with this report.

ACCESSIBILITY IMPACTS

There are no accessibility impacts associated with this report.

ENVIRONMENTAL IMPLICATIONS

There is evidence of an increasing trend in nitrate concentration in the ground water wells in Shadow Ridge. The owner of the Shadow Ridge Communal Well System is working to identify an acceptable solution before further development or lifting of any reserve can be authorized by the Planning Authority.

The development of the QMS is provincially legislated under the *Safe Drinking Water Act (2002)*. The QMS has been reviewed by a third-party accreditation body and the City of Ottawa has obtained its Operating Authority Accreditation. This report also fulfills the legislative requirement to report on the Annual Management Review of the QMS to the Owner.

TECHNOLOGY IMPLICATIONS

There are no direct technical implications associated with this report.

TERM OF COUNCIL PRIORITIES

The DWQMS is the key tool that supports and assures Council, as the Owner of the drinking water systems, that it is meeting its duties and responsibilities under the *Safe Drinking Water Act (2002)*, and the Statutory Standard of Care (section 19).

The implementation of the Operational Plan also supports the Sustainable Environmental Services and Service Excellence Strategic Priorities. The Operational Plan ensures the commitment to provide a reliable supply of safe drinking water to the consumer; meet or exceed applicable legislation and regulations; implement, maintain and continually improve the QMS, infrastructure and technology; and deliver excellent customer service through responsiveness, accountability and innovation.

SUPPORTING DOCUMENTATION

Document 1: 2014 Management Review Action Items

Document 2: Operational Plan (held on file by Clerks)

DISPOSITION

Staff will continue to work to provide safe drinking water, following all legislation. Staff will implement any direction received as a result of this report.