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PROPOSED REGULATORY CHANGES - DRINKING WATER QUALITY MANAGEMENT STANDARD UNDER THE SAFE DRINKING WATER ACT

The Transportation and Works Committee recommends the adoption of the recommendations contained in the following report, January 20, 2006, from the Commissioner of Transportation and Works:

1. RECOMMENDATIONS

It is recommended that:

1. Transportation and Works Committee and Regional Council, receive the comments submitted by the General Manager, Water and Wastewater in response to proposed Drinking Water Quality Management Standard under the Safe Drinking Water Act (2002).
2. Staff report back to the Transportation and Works Committee and Regional Council when the finalized Drinking Water Quality Management Standard has been released by the Ministry of the Environment.

2. PURPOSE

This report is to inform members of Transportation and Works Committee and Regional Council that the Canadian Standards Association (CSA) in conjunction with the Ministry of the Environment (MOE) have released a second draft of the proposed Drinking Water Quality Management Standard (DWQMS) for comment.

Comments on the first draft proposed DWQMS were submitted by the General Manager, Water and Wastewater in February 2005 in response to the call by the CSA and MOE (*see Attachment 1*).

Comments were also submitted on the second draft of the proposed DWQMS by the General Manager, Water and Wastewater in response to the posting by the CSA and MOE, available until January 27, 2006 (*see Attachment 2*).

3. BACKGROUND

In Part II of the Walkerton Report, Justice O'Connor made several recommendations regarding the potential for a harmonized quality management system for all drinking water systems. Specifically, Justice O'Connor recommended that '*...The Ministry of the Environment should initiate the development of a drinking water quality management standard for Ontario. Municipalities, the water industry, and other relevant stakeholders*

should be actively recruited to take part in the development of the standard. The water industry is recognized as an essential participant in this initiative...'

The MOE has indicated that accreditation to the DWQMS by a third party auditor will be required as part of the pending 'Drinking Water Licence' framework. The 'Drinking Water Licence' has been proposed to amalgamate all current approvals documents, including facility classification, drinking water system Approvals and Permits to Take Water, and a financial plan into one platform.

The CSA was contracted by the MOE to undertake the development of the draft DWQMS. The CSA Project Team has been working with a Core Team of water industry professionals and MOE staff to develop the processes and background material. The CSA is involved in the development of international standards, including the ISO 14001 Environmental Management Standard and the ISO 9001:2000 Quality Management Standard.

In October 2004, drinking water system stakeholders were asked to review a draft proposed DWQMS developed to date. A number of workshops were hosted by the CSA throughout late October and early November across the province to provide additional information to stakeholders regarding the proposed DWQMS. Written comments were also solicited until November 12, 2004. Upon receiving these comments, the MOE and CSA reviewed the feedback and provided a second of the DWQMS for public comment until January 27, 2006.

Currently, all of the drinking water systems operated by York Region are registered the ISO 9001:2000 Quality Management Standard.

4. ANALYSIS AND OPTIONS

The second draft of the DWQMS was reviewed by the Water and Wastewater Branch staff involved in the drinking water systems and quality management systems and staff of Legal Services Branch. The second draft does not appear to deviate very much from the previous version released earlier in 2005. As such, the Water and Wastewater Branch has a majority of the required documentation pre-established because of the registration of the drinking water systems to the ISO 9001:2000 standard.

4.1 Operational Plan Requirements

The first draft of the DWQMS released early in 2005 identified the requirement for each drinking water system to develop operational plans that will require approval by the MOE. It was unclear as to the required content of the operational plans and how this document will be approved by the MOE, including an associated timeline. It was also unclear as to what implications surround a multi-tiered municipality and whether there will be a requirement for a harmonized operational plan between the tiers or whether each municipality will have to submit individual plans.

The second draft of the DWQMS has not provided any additional information on the requirements for an operational plan but the intent of the MOE is to have each municipal drinking water system registered to this standard, regardless of the size and scope of operations. It is expected that collaboration between York Region staff and the local municipalities' staff will occur to meet some of the joint requirements of the DWQMS when finalized.

4.2 Critical Control Point Analysis

Both the first and second drafts of the proposed DWQMS require the owner and/or operating authority to undertake an identification and evaluation of the 'Critical Control Points (CCP) in the drinking water. The CCP methodology comes from food industry standards that require the identification of potential risks in any given process and the identification of controls that can be exerted to manage those risks.

In the second draft, more detail is supplied regarding the evaluation of CCP. Previously, it was not clear what was needed to fulfill this requirement. In the second draft of the proposed DWQMS, there are a number of items identified as part of the identification of the CCP's; these items include an 'Operator's description' of the water system, specific requirements of the hazard analysis and the CCP determination and key outputs of the CCP plan.

4.3 Requirements for provision of infrastructure and resources

The first draft of the proposed DWQMS had identified the requirement for 'Top Management' to define the required resources for the drinking water system, including the provision of infrastructure and human resources. 'Top Management' is defined in the both the first and second proposed DWQMS as the 'person or group of persons who directs and controls the Operating Authority'. It continues to be unclear whether the Regional councillors or municipal councillors will be defined as part of the 'Top Management' in the final version of the DWQMS.

It was unclear in the first draft proposed DWQMS whether the requirements for the provision of infrastructure and resources would be in conjunction with Bill 175, the Sustainable Water and Sewage Systems Act. Bill 175 received Royal Assent on December 13, 2002, but there have not been any regulations released under the Act to date. It is expected to require reporting of full cost accounting for both water and sewage systems when the regulations are posted.

The second draft of the proposed DWQMS did not expand further on the provisions for a financial plan. There is no further indication of whether these DWQMS requirements will satisfy the requirements of Bill 175, the Sustainable Water and Sewage Systems Act or whether this will be a separate requirement.

4.4 Implementation of an Auditing program for the DWQMS

In both the first and second draft proposed DWQMS, there is no identification of the methodology that will be used with regards to audit findings.

In an ISO 9000:2000 registered system, an external audit is required by a registrar on an annual basis to maintain certification. Additionally, an internal audit system is required to be established. The results of these audits are considered to be confidential and have not typically been shared with the MOE but have been used to demonstrate York Region's due diligence in situations when needed.

The MOE is using the DWQMS as part of the pending 'Drinking Water Licence' framework. It is unclear how the third party audits will be conducted and whether findings will be considered confidential like an ISO 9000:2000 registered system.

There is a concern from staff that if the process is not the same as an ISO 9000:2000 program, the MOE could use both the findings of the internal audits and the external audits as information to pursue potential investigations. The involvement of the MOE could impair an organization's ability to make independent changes to the DWQMS and undermine the continual improvement of the system.

5. FINANCIAL IMPLICATIONS

The financial implications of the proposed DWQMS are unclear.

Currently, a contract is tendered for the third party audit services for the ISO 9001:2000 programs. This contract is a three year contract providing semi-annual third party audit services, including a re-registration audit to the ISO 9001:2000 standard every three years. The current value of the contract is \$12,500 + GST, which is for a three year audit cycle. It is anticipated that a similar cost will be incurred for the audit services required for accreditation to the proposed DWQMS.

Additionally, consulting services may be needed in conducting CCP analysis and to address the requirements of the operational plan. An estimate for this type of analysis on a per system basis is between \$10,000 and \$15,000 depending on system complexity for the CCP analysis and an additional \$50,000 total for an operational plan. This is a conservative estimate because these practitioners will need to be deemed 'qualified' by the MOE and the costing figures could increase due to demand pressures.

Therefore the total additional cost to York Region could be in the order of \$200,000 to \$250,000 for initial consulting services plus an average of \$10,000 per year for auditing services.

6. LOCAL MUNICIPAL IMPACT

York Region derives 70% of its' drinking water through supply contracts with Toronto and Peel Region. These agencies, along with the local municipalities in York that distribute drinking water, will need to comply with the proposed DWQMS. It is unclear how the proposed DWQMS will affect the local municipalities in this multi-tiered supply arrangement and whether practical efficiencies might be achieved. It appears that each local municipality will be required to be accredited to the DWQMS independently of York Region's drinking water systems. However, there may be opportunity to collaborate on some portions of the proposed DWQMS where service and ownership overlap occurs.

The provincial requirement for accreditation will be a significant undertaking for the local municipalities and could, in some instances, strain local resources, both human and financial.

7. CONCLUSION

Currently, York Region's Water and Wastewater Branch is in good position with respect to the second draft of the proposed DWQMS. The implementation, registration and maintenance of the current ISO 9001:2000 programs for the drinking water systems is an excellent building block for the proposed DWQMS. However, it is expected that outside consulting resources will be required to fulfill the requirement to prepare an operational plan in the format required including CCP analysis. The cost of this work could be in the order of \$300,000.

The Senior Management Group has reviewed this report.

(The attachments referred to in this clause are attached to this report.)