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STAFF REPORT: Infrastructure and Public Works



REPORT TO:	Committee of the Whole
MEETING DATE:	June 27, 2016
REPORT NO.:	CSPW.16.081
SUBJECT:	Cross Connection Control Program Update
PREPARED BY:	Brian O'Reilly, Backflow Prevention and Water Meter Coordinator

A. Recommendations

THAT Council receive Staff Report CSPW.16.081 entitled, "Cross Connection Control Program Update" for their information.

B. Background

The Town of The Blue Mountains (Town) approved By-law 2013-31 in 2013. The Backflow Prevention and Cross Connection Control Program (CCCP) is a premise isolation program designed to protect the Municipal drinking water system from contamination. The CCCP applies to all Industrial, Commercial, Institutional (ICI) and multi-unit residential properties. The CCCP applies to existing buildings as well as new construction. Premise isolation through the installation of a testable backflow prevention device is required for all buildings of moderate or severe hazard. All other properties, including single unit residential, require a minor hazard device and do not fall within the CCCP. The purpose of this report is to provide an interim update of the current status of the program.

Potable water distribution systems are exposed to a number of threats, including from cross connections. If a cross connection is not properly protected against backflow it poses a potentially dangerous risk of contamination. To provide this protection, appropriate backflow prevention devices must be installed, tested and maintained on the connections to the system. Each property must be assessed to determine the hazard classification. This is achieved through a survey performed by a qualified backflow specialist. The purpose of the survey is to identify all threats posed by cross connections, identify existing backflow prevention devices, assign the appropriate hazard ratings to each property and recommend suitable devices. All properties must be equipped with some form of premise isolation device.

The implementation of a cross connection control program is a best management practice recommended by the Ministry of the Environment & Climate Change (MOECC). The most recent changes to the 2012 Ontario Building Code (OBC) now require that all buildings of moderate to severe hazard install premise isolation. This is a welcome addition to the Code and will assist in bringing all new buildings into compliance with the CCCP.

The By-law requires that:

- Testers & surveyors are properly qualified and registered with the Town;
- Property owners contract a qualified surveyor to complete and submit surveys;
- Property owners provide proof that backflow devices are tested annually by a qualified registered tester;
- Review of surveys and test results are submitted as required to ensure proper completion;
- Deficiencies are followed up on to ensure compliance.

The initial focus of the CCCP has been on municipal facilities, high hazard properties and properties with large diameter water services. As the high hazard properties are addressed, the program is widening its scope to include moderate hazard locations. A number of property owners in Town have been contacted to undertake property surveys.

CCCP in Town-Owned Facilities

In order to lead by example and show the Town's commitment to backflow prevention, equipping Town owned facilities with certified backflow prevention devices was a priority. Considerable effort went into bringing municipal buildings into compliance and Town Facility Staff have been very helpful during this process. A number of plumbing changes were made to bring the facilities up to program requirements. Annual testing is being performed and after the BVCC has installed a backflow prevention device all Town owned facilities will be fully compliant with the CCCP.

CCCP Operational Details

A Qualified Contractor Registry has been developed and includes a roster of contractors able to complete the required surveys and perform device testing. Each year the contractors are required to submit an application for renewal along with supporting documentation. This requires reminder letters and follow up from the Town.

In an attempt to identify all Industrial, Commercial, Institutional (ICI), and Multi-Unit Residential (MUR) properties, an internal review of water bills, Business Improvement Area (BIA) listings and maps was performed. The Town does not maintain a business licensing system nor does the utility billing system differentiate ICI & MUR accounts from regular residential accounts. Locating the individual responsible for a facility continues to be somewhat of a challenge. Owners often contract property management companies. Property managers tend to change frequently. Occupants of commercial properties are often not the owner of the property but are responsible for all costs associated with the business. Additionally there are a number of properties with absentee owners. In any case, the property owner is responsible for adhering to the CCCP and as the database grows, it becomes more comprehensive.

The CCCP database is maintained with a dedicated backflow prevention management software package (BPMS). This database contains all test and survey results, qualified contractor company and tester information, calibration tracking, customer data, facility information and backflow prevention device information.

BPMS Software has provided a platform to initiate the CCCP, but some deficiencies within the software have been noted. An add-on backflow prevention module for CityView is being evaluated in conjunction with the Town's Finance and IT Department. The migration from the current database software to CityView would provide a number of benefits over the existing software. BPMS operates on an outdated module that makes general navigation, access and operational tasks (such as reporting functions and mail merge) challenging. Many Town Staff are familiar with the CityView program and one of its primary functions is to store property information and details. Its multi-divisional accessibility would be beneficial in expanding the CCCP and maintaining consistency and accuracy of records. The CityView add-on module has been quoted at \$2,500 excluding HST plus an annual maintenance cost of \$550. There is adequate budget for this expense in the 2016 Backflow Operating budget, and consideration for any annual expense will be accounted for in the operating budget.

One of the largest areas of interest for the program is the Village at Blue Mountain (Village) and Blue Mountain Resorts (BMR). The Village and surrounding areas presents a unique challenge due the complexity of the properties and the number of stakeholders involved. There is ongoing communication with the engineering staff at BMR and the Westin regarding the need for cross connection surveys. They had designated a main contact to coordinate surveys of all the associated properties. Personnel issues have caused some delays in this process. The CCCP is constantly expanding and evolving in the Village and BMR to encompass all properties, owners and potential cross connection threats. Continued communication is key to ensuring further program implementation within the Village and BMR. Currently, the Town has approximately twenty main meters installed in the BMR and Village area. Some of these already have premise isolation devices installed whereas others require the installation of backflow devices. This is a large project but when complete it will mitigate a significant contamination risk.

Next Steps

Moving forward, there are several key areas of focus to expand the CCCP. Most notably:

- Additional requests for cross connection surveys will be sent out and Staff will continue to request test results for installed devices;
- Migration of the database to Cityview will occur in the near future and this will assist in ensuring the currency of property information;
- Prepare accessible documents for the Town's new web page and investigate the possibility of accepting on-line submissions and payments.

C. The Blue Mountains' Strategic Plan

Reporting on the CCCP furthers Strategic Goal #4 - Promote a culture of organizational and operational excellence.

D. Environmental Impacts

Initiating a CCCP helps to ensure continued access to safe, clean drinking water for the residents and visitors to Town of The Blue Mountains.

E. Financial Impact

None.

F. In Consultation With

John Caswell, Manager of Water & Wastewater Services

G. Attached

None.

Respectfully submitted,

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