



INFORMATION REPORT

TO: Chair and Members Public Works Committee	WARD(S) AFFECTED: CITY WIDE
COMMITTEE DATE: June 18, 2012	
SUBJECT/REPORT NO: Drinking Water Backflow Prevention Program (PW12050) - (City Wide) <i>(Outstanding Business List Item)</i>	
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SIGNATURE:	

Council Direction:

On February 8, 2012, Public Works Committee directed staff: *“to Report back to the Public Works Committee on issues around a third category of water users, specifically large water users serviced by a pipe width greater than an inch and a half that are required to install a hot box. Staff were directed to investigate permitting the installation of back water valves inside existing buildings for this category of users.”*

Information:

The City of Hamilton’s Bylaw 10-103 and Drinking Water Backflow Prevention Program was implemented in 2010 to ensure the safety of municipal drinking water and is currently in the initial compliance phase. Initial compliance is followed by a requirement for ongoing maintenance and testing by property owners. The Program is predicated on the Canadian Standard for backflow prevention CSA B-64. This Standard sets out the guidelines for determining the hazard level of properties, and determining device selection and installation requirements to adequately protect public health. While the CSA Standard provides guidelines for a full program which includes protecting all potential cross connections within a property, Hamilton has focused its bylaw on “Premise Isolation” which is meant to protect only the City’s water distribution system from potential contamination that may occur as a result of backflow from individual properties. This requires the installation of a backflow prevention device on each domestic water service that crosses the property line to service a property. This approach is viewed as the minimum requirement of an effective backflow prevention program.

Hamilton’s Program is unique with respect to the provision of an exception for small diameter services and the ability for this classification of properties to undertake a self-

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assessed survey. To date Hamilton is the only municipality known to make such an exception as part of its by-law. This classification was created to ease the financial burden for property uses that likely do not pose a significant risk to the municipal water supply but remain captured by the CSA B-64 Standard. Maintaining a classification, such as the one described above, does diminish the effectiveness of the Bylaw to a minor extent however, staff remain satisfied that the essence of the Bylaw currently protects the municipal water supply and is effective.

In response to the Council direction above, staff further reviewed the Backflow Prevention By-law to explore the possibility of creating a third category of properties that could be defined in the by-law and would eliminate the need for “Hot Boxes” and allow property owners to install the backflow prevention device inside their building. Hot boxes are required in certain circumstances when the piping network and property use occurring dictates the need for the highest level of protection at property line and must remain in operation throughout the winter months. As part of this process staff considered a number of scenarios and analyzed potential options. A number of issues emerged, which demonstrated that creating criteria that satisfied the Council direction would adversely affect the Program making it very difficult to administer and diminishing its overall effectiveness. Staff concluded that it is not possible to create a third category of property use and/or piping arrangement to eliminate the specific need for hot boxes while maintaining the integrity and effectiveness of the Bylaw.

While this most recent analysis demonstrated there is no recommended option for a third category of eligibility, it is important to note that City staff exercise flexibility with property owners in how compliance with the By-law is achieved. The objective is to achieve results while delivering excellent customer service and minimizing expense for business.

The Backflow Prevention Program currently affects approximately 6,700 Industrial, Commercial and Institutional (ICI) properties within the City. Full compliance with the Program remains ongoing and is expected to be achieved for all categories within the next three years. Of the properties required to comply with the Program it is anticipated that 100-150 (approximately 2%) properties will be required to install hot boxes.

In summary the analysis undertaken by staff confirmed that the creation of the third category of eligibility under the Bylaw would jeopardize the overall effectiveness of the Program is not recommended for further action. The purpose of this report is to advise Council that further revisions to the Drinking Water Backflow Prevention Bylaw and Program to allow for a third classification of properties is not recommended.