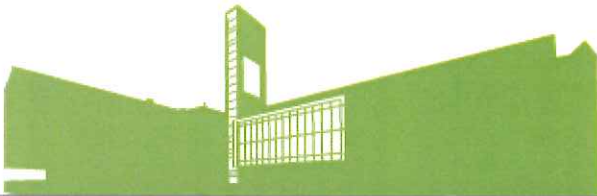


# Proposed Backflow Prevention By-law and Implementation Program

Committee of the Whole  
December 6, 2017

C	1
COMMUNICATION	
CW (WS)	Dec 6/17
ITEM -	1



1

# Purpose of Council Report

To seek Council's approval for the new Backflow Prevention By-law

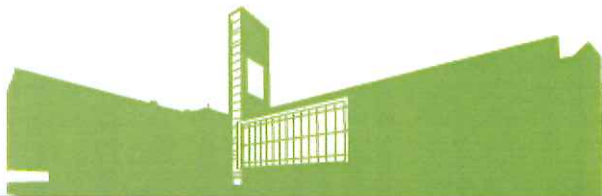


2



# Need of a New Backflow Prevention By-law

- Internal Audit recommended the development of the Backflow Prevention by-law
- Annual MOECC Drinking Water Inspection Report
- Represents best practices to enhance protection of our Drinking Water System
- Supports continuous improvement as stated in our Quality Management System (QMS) Policy

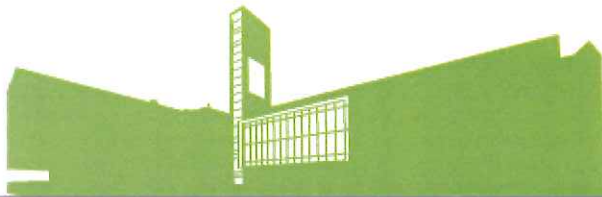


3



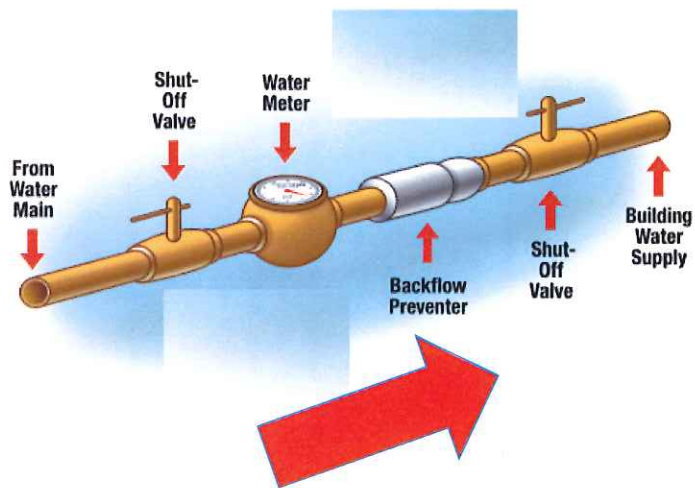
# The City's Proposed Backflow Prevention By-law

- The objectives of the By-law:
  - To enhance protection of the Drinking Water System by preventing contaminants from entering into the drinking water system due to backflow from ICI sites
  - To safeguard public health & safety

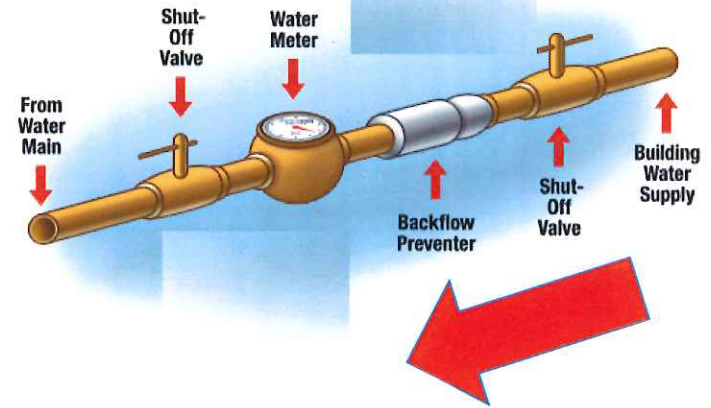




# Example of Backflow



Normal Condition



Backflow Condition



# Backflow Prevention By-laws & Implementation Programs Within Ontario

- Many municipalities in Ontario have implemented or are in the process of implementing a backflow prevention By-law and program.
- Municipalities that have implemented the program include:
  - Markham
  - Hamilton
  - Ottawa
  - Toronto
  - Kitchener
  - Waterloo



# Properties Affected by the Proposed Backflow Prevention By-law, Implementation Program & Impact

- **Existing ICI, Mixed-Use, Multi-Use and Multi-Residential Properties**
  - 3,230 existing Industrial, Commercial, Institutional, Multi-use and Mix-use Residential/Commercial Properties in the City
  - Since 2004, property owners were required to install a backflow prevention device (check valve) per the City's Engineering Design Standards & Criteria, but may not meet CSA and AWWA guidelines
- **New ICI, Mixed-Use, Multi-use and Multi-Residential Properties**
  - In accordance with City's Engineering Design Standards & Criteria, backflow prevention devices are required to be installed for new properties





# 10-Year Implementation Plan

*(Based on CSA Guidelines)*

Phases	Hazard Classification	Examples	Years
Phase 1	Severe	Carwash, Hospital, Restaurant, Laboratory, Chemical cleaning, Dental vacuum pump	1-5
Phase 2	Moderate	Air compressor oil cooler, Private fire hydrants, Spa or hot tub, Irrigation system	5-8
Phase 3	Minor	Water distilleries, Industrial pressure washer	8-10





# Key Activities in Each Implementation Phase

- Public education and outreach program
- Properties survey, risk assessment and hazard classification
- Communication/coordination with the property owners
- Selection of backflow prevention devices
- Installation, testing and commissioning
- Annual inspection and maintenance program



# Questions?



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