

# Backflow Prevention

## Water / Wastewater Services



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# Ontario Safe Drinking Water Act



- The Safe Drinking Water Act, 2002, regulation for protection of drinking water
- Collaboration with the government to establish Backflow Prevention By-law
- Our commitment to provide clean and safe drinking water



# How Does Backflow Occur?

- Two ways that Backflow can occur :
  - Back siphonage
  - Back pressure



# Watermain Break Back Siphonage





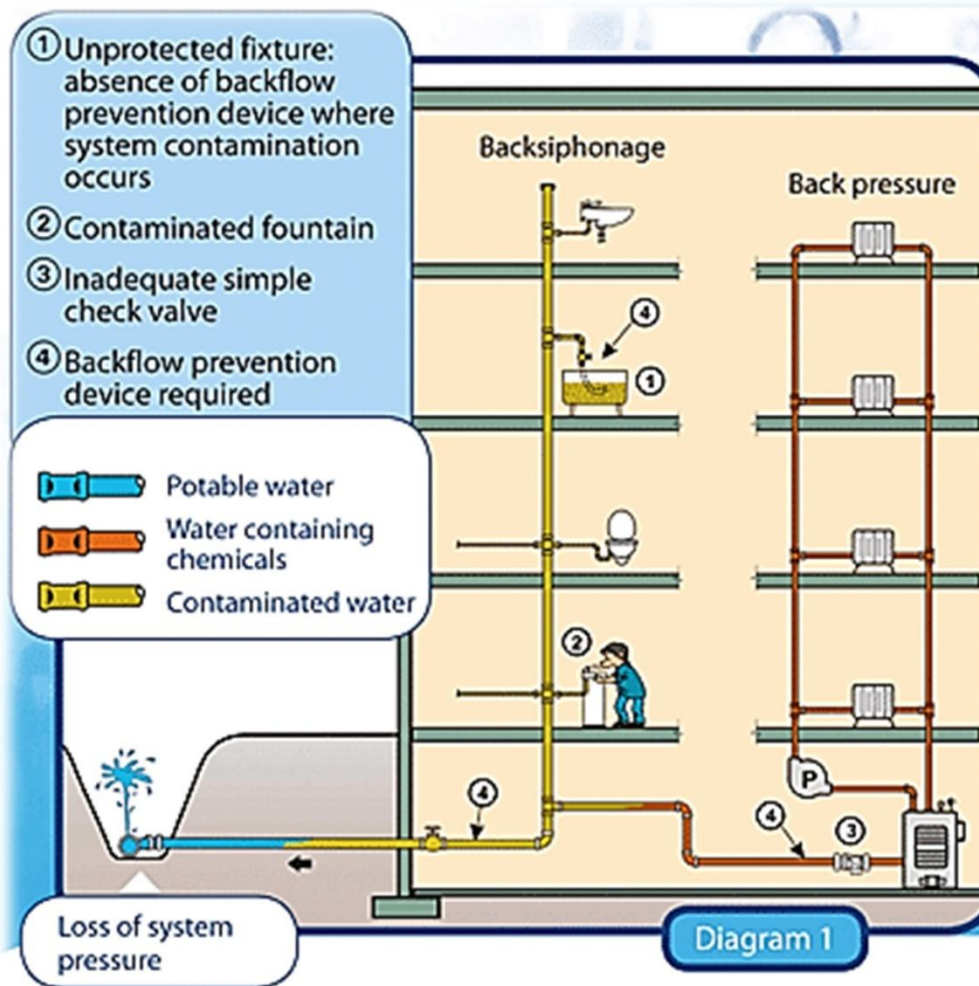


# Car Wash – Back Pressure





# Backflow Risks





# Occurrences

- backflow incidents often occur, but not widely publicized
- Stratford - 2005
- Guelph - 1997





# Stratford ON - 2005



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## Stratford eases water ban after car wash spill

CBC News Posted: Mar 08, 2005 9:37 AM ET | Last Updated: Mar 08, 2005 1:33 PM ET

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### External Links

- City of Stratford website

(Note: CBC does not endorse and is not

People in Stratford, Ont. can use their tap water again as long as they boil it, public officials said Tuesday, a day after a car wash spilled about 19 litres of concentrated detergent into the city's water supply.

On Monday, the southwestern Ontario city's 31,000 residents were warned they couldn't use the water for drinking and bathing even if they boiled it first, a common precaution in cases of water contamination.

Public health and civic officials said the car wash detergent contained traces of the chemical 2-Butoxyethanol, an industrial solvent that can cause breathing problems and low blood pressure if swallowed.

All schools were shut for the day Tuesday and all elective surgeries were cancelled due to the contamination.

At midday Tuesday, however, the city relaxed its total ban on tap water use.

water\_stratford050307

Stratford residents fill up.

### REGIONS

British Columbia	Kitchener-Waterloo
Kamloops	Hamilton
Calgary	Toronto
Edmonton	Ottawa
Saskatchewan	Montreal
Saskatoon	New Brunswick
Manitoba	Prince Edward Island
Thunder Bay	Nova Scotia
Sudbury	Newfoundland & Labrador
Windsor	North

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# Guelph ON - 1997

**THE GUELPH MERCURY**  
Friday, August 29, 1997 *Delivering the news to Guelph and Wellington County* Volume 150 No. 58 \$1.00

**Nun attack/ A2** **Guelph centre on cutting edge of food technology/ A3** **Royals win/ B1**

## Half of Guelph goes without drinking water



**Chemical leaks into water supply causing tap water contamination**

BY ANDREW BRUCE  
*The Guelph Mercury*

Word slowly crept through the City of Guelph Thursday that people in the northern half of the community should not drink tap

around the Autocom plant and spent the day flushing the water out of fire hydrants and into the sewer system, leading to the sewage treatment plant.

Renosol 1515, a petroleum-based chemical, is mixed with water at Autocom - at a concentration of five per cent chemical - and sometime overnight there had been a failure of a back-flow prevention device that keeps the mixture out of the city water system, the health unit said.

Mid-morning Thursday the city contacted CJOY and Magic FM 106.1 to tell residents north of the CN

resident, didn't know there was a warning about the tap water until a reporter contacted her.

"I'm very shocked, surprised," she said. One of her three children drank a glass of water and she was also upset that the family's new puppy drank water all day long.

Fatt was disturbed that she was in the dark on the possibility of water contamination.

Robert Thompson, director of the health protection division at the health unit, said there is little else that can be done to notify people short of going into neighbourhoods with loud speakers.



# Backflow Solution

- a backflow prevention device is one method of ensuring safe drinking water
- Over 18 municipalities in Ontario already have an active backflow prevention by-law



# Backflow Solution

Double Check Valve



Reduced Pressure  
Valve





# Questions?

