



# PROTECTING YOUR HOME FROM HEAVY RAINS

In the context of climate change, intense rainfalls are becoming increasingly frequent.

These events can result in large volumes of water rapidly entering the municipal network, increasing the risk of sewer backup and water infiltration into buildings.

This informative document has been designed to help our citizens protect their homes against such eventualities. We hope you enjoy reading it and find it useful.

Visit the Town's website for dates and locations of upcoming information sessions for Kirkland residents.



KIRKLAND

## Municipal Sewer System

Kirkland's territory is equipped with **SEPARATE SEWER SYSTEMS**, in other words, the sanitary network is separate from the storm water network.

### BEST PRACTICES to implement

In the event of heavy rainfall, wastewater draining from the building to the sewer may be blocked by a closed backflow water valve.

#### You should therefore avoid:

- Flushing the toilet
- Taking a shower or emptying a bathtub
- Using the washing machine or the dishwasher
- Any other use of water that could activate your home's sewer system.

#### For additional protection:

A sump pump may be installed on foundation drains to redirect water on your lot. *This helps drain storm water efficiently when the municipal system is overwhelmed.*

### REGULATORY ACTIONS to implement

#### Install a backflow water valve:

- ✓ On every sanitary pipe in the building
- ✓ On the storm water pipe in the building

**EVERY PLUMBING INSTALLATION IS DIFFERENT.** It is therefore advisable to consult a certified plumber who is a member of the CMMTQ to determine the best practices for your particular basement.

### Applicable Regulations

- ✓ Quebec Construction Code : Chapter III, Plumbing
- ✓ Construction By-Law : Town of Kirkland
- ✓ By-Law 2008-47 : Montreal Metropolitan Community (MMC)

### INFO

ville.kirkland.qc.ca  
514 694-4100

## BACKFLOW WATER VALVES

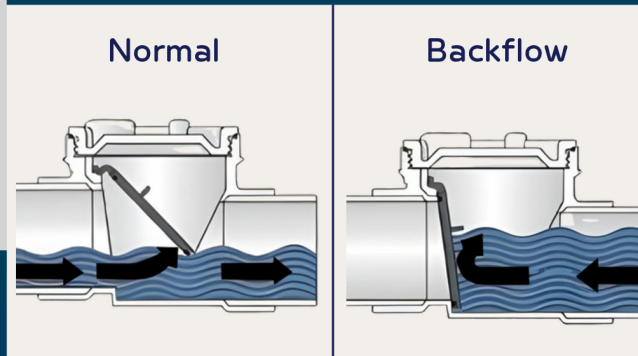
The backflow water valve is a device designed to prevent sanitary and storm water from flowing back into your building. This device must be installed by a plumbing professional, be accessible and be serviced regularly. The two most common models are shown below.

### « Normally CLOSED » Backflow Valve



In normal operating mode, the valve door opens only for normal sanitary and rainwater drainage. In the event of backflow, this door blocks water flowing in the opposite direction.

#### Operating Mode



#### NOTE

Installations with a "normally closed" backflow valve must be equipped with a cleanout inside the building.

### THINGS TO CHECK

#### Backflow valves

Valves and accessories must be in good condition, properly installed, always accessible and properly cleaned.

#### Foundation drains (French drains)

Foundation drains must not be connected to the sanitary sewer system.

In the case of a pipe that carries water from foundation drains to the city storm sewer, it must be equipped with a backflow valve with a cleanout installed inside the building for maintenance purposes.

#### Foundations

Foundations must be watertight and free of cracks.

#### Gutters

Gutters must not be connected to the storm water or sanitary network.

Rainwater collected by an eavestrough system must not be channelled into the city network and must be directed at least 1.5 m away from the foundation towards vegetation on your property (lawn, trees, shrubs, flowerbeds).

#### Lot design

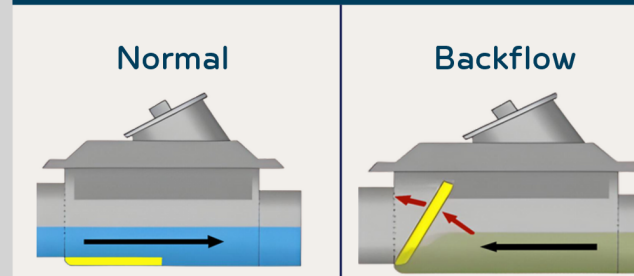
The lot layout must include adequate slopes to provide good drainage and favor permeable surfaces.

### « Normally OPEN » Backflow Valve



In normal operating mode, the valve door remains open, and closes in the event of backflow to block water flowing in the opposite direction.

#### Operating Mode



#### NOTE

A "normally open" backflow valve can only be installed on the sanitary sewer if it serves a single dwelling.

Installations with this type of backflow valve must be equipped with a cleanout inside the building.

