

# PREVENTING WATER DAMAGE IN THE BASEMENT

Thousands of home insurance claims are filed every year. Some losses are major, others aren't, but they're always an inconvenience—and usually avoidable! As prevention advisors, we inspect and make recommendations on numerous buildings every year.

## PROTECT YOUR INVESTMENT

Being a homeowner comes with its share of responsibilities. Protecting your investment

requires regular maintenance and a dose of foresight.

## THINGS YOU CAN DO TO PROTECT YOUR INVESTMENT

Sealing cracks before they get worse, checking the backwater valve to avoid a sewer backup, extending downspouts to prevent water seepage. It's a lot of work to maintain a home, but nowhere near as much as having to clean up after sustaining water damage in your basement!

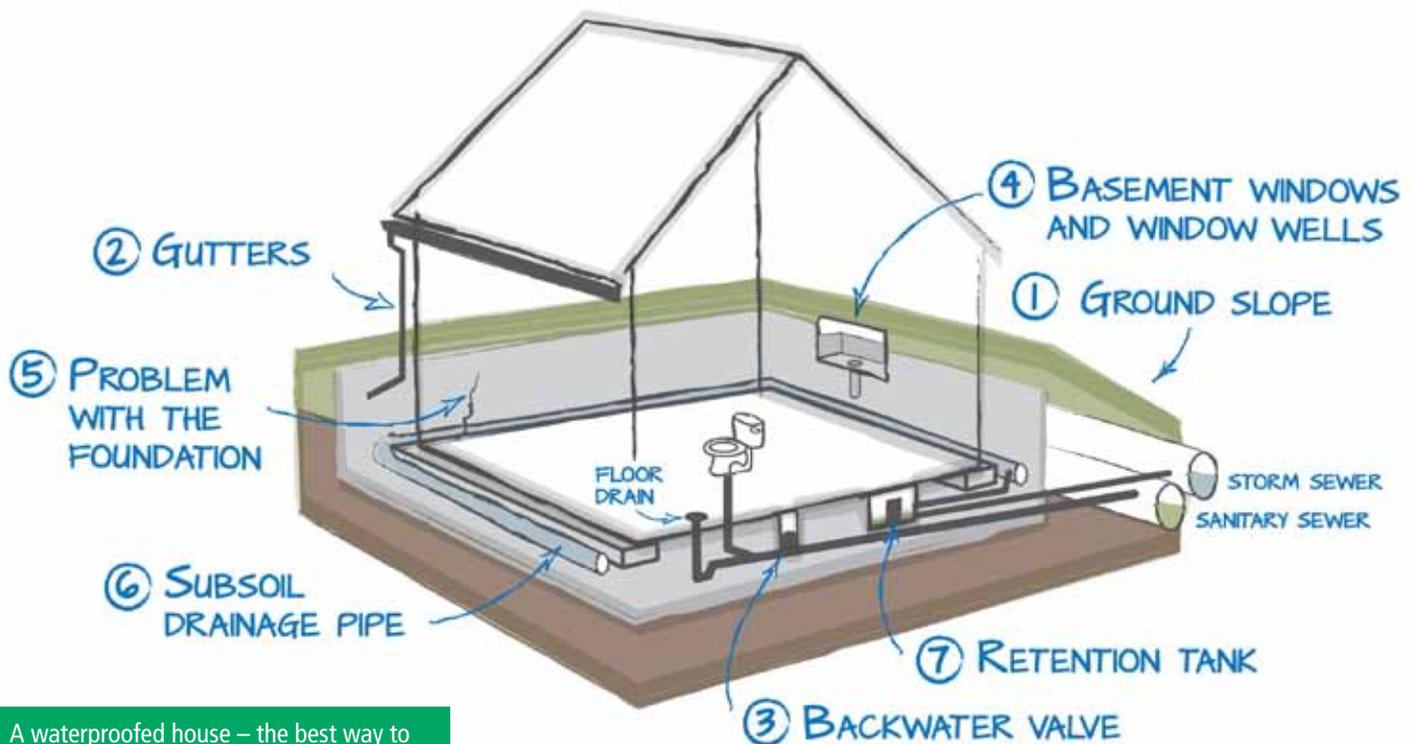
## TIPS FROM THE PROS

We're property owners too. We can provide you with simple, effective and practical ways of making water damage prevention part of your maintenance routine. We've seen a lot of avoidable losses, and we want you to benefit from our experience.

*Your Desjardins prevention advisors*

Almost half of our policyholders' claims are related to water damage.

## MAIN CAUSES



A waterproofed house – the best way to prevent water seepage in your basement.

# CAUSE NO. 1: GROUND SLOPE

Over time, soil erosion can change the slope of the ground around your house, until one day you realize rainwater is flowing toward the house instead of toward the street! Be sure to keep an eye on this and take action to avoid seepage problems.

When the ground slopes toward the house, water from heavy rainfall or melting snow will collect near the foundation and fill the drains. Water has nowhere else to go but to seep into the most vulnerable points—the base of the foundation or small cracks.

## WHAT CAN YOU DO?

A simple solution: Use backfill to create a slope away from the house.

1. Raise the ground level around the foundation, preferably with clay soil\*
2. Then, cover with sod\*\*

\* Clay is the perfect backfill because it's non-porous and acts as a good water barrier.

\*\* Be careful with decorative gravel! It looks good, but it lets water seep into the ground quickly, which can overload the subsoil drains and let in water.

A slope of as little as 10 to 15 cm over 1.5 m (4 to 6 in. over 5 ft.) starting from the outside wall of the house is enough to keep water away from the foundation.



# CAUSE NO. 2: GUTTERS

**Gutters play a crucial role:**

- They carry thousands of litres of water every year.
- During heavy rain, they can collect up to 10,000 L of water – half the volume of a 15-ft. swimming pool.

They are crucial to keeping all that water away from the foundation and preventing the formation of crevices in the ground that can lead to water seepage. Here are 2 tips to keep the gutters in top shape:

1. Lay a concrete slab under the downspout, sloping away from the building; or
2. Add a section of horizontal pipe at the end of the downspout.

The downspout extension should carry water at least 1.5 m (5 ft.) away from the foundation and toward a permeable surface such as a lawn or garden.

## A WORD OF CAUTION

Are your downspouts connected to the subsoil drainage pipe or the municipal sewer system? Warning: They could overflow! This is against National Building Code standards and many municipalities' bylaws. Disconnect them to avoid the risk of a sewer backup.

## CLEAR THE GUTTERS: A GOOD HABIT TO GET INTO

Ideally, you should clean the gutters in the spring and fall. Remove leaves and debris then use a hose to run water through them, starting from the highest point. That way you can check that the water is flowing properly and find any leaks. For your safety, we recommend hiring a professional.

Remember: Simply extending gutters and correcting the ground slope can cut the risk of water seepage **by half**.

# CAUSE NO. 3: BACKWATER VALVE

## What's a backwater valve?

*A backwater valve prevents sewage water from backing up into your home.*

**The backwater valve is part of the plumbing system and is located in the basement. Its simple open-close flap does an important job: making sure the municipal sewage system doesn't back up into the drains and ends up bubbling out of your plumbing fixtures!**

Most buildings have one or more of these backup prevention devices. You'll find your backwater valves in the basement, either covered by a trap or installed on above ground pipes near plumbing fixtures (e.g., sinks, toilets, showers or washer drains).

If your basement is unfinished, you may see a round (usually black) trap on the floor. Simply lift it to access the valve. With an above ground installation, the valve will often be right on top of the drain pipe of a plumbing fixture.

### ACCESSIBLE BACKWATER VALVES – THE SECRET TO SUCCESS!

Sewer backups aren't fun, so it's worth making sure your backwater valves are properly sealed and well maintained. And that means they have to be accessible! If your valve is covered by a trap, make sure you can find and remove it if you need to.

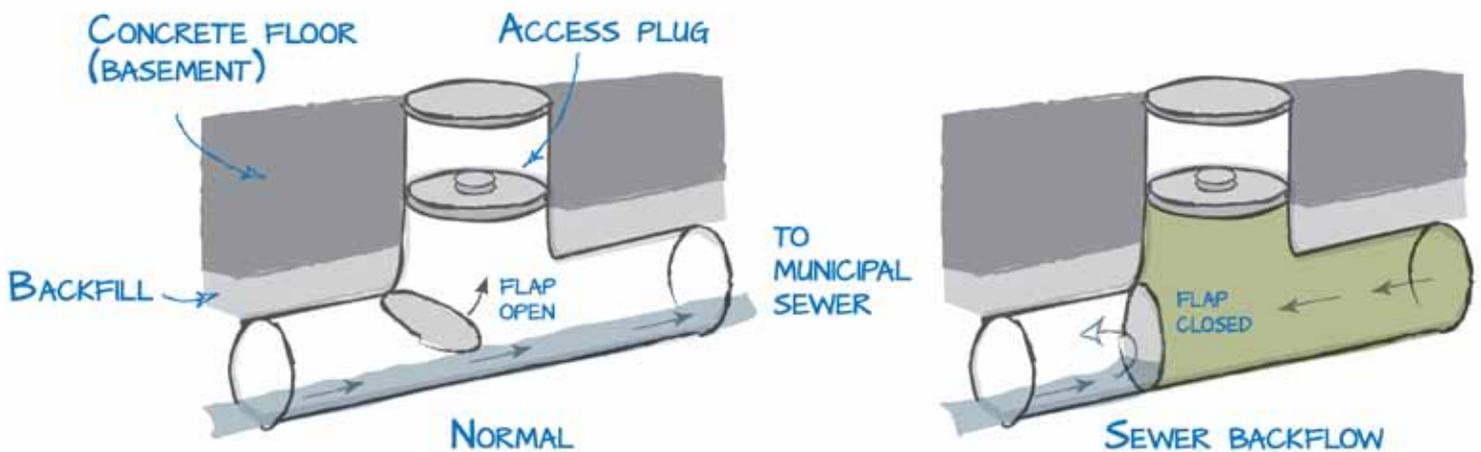
### CLEAN VALVES BRING PEACE OF MIND

Cleaning a backwater valve is much easier than having to dry out a flooded basement! It only takes a few minutes to make sure it's sealed and working but time well spent.

### CLEANING A BACKWATER VALVE IS SIMPLE

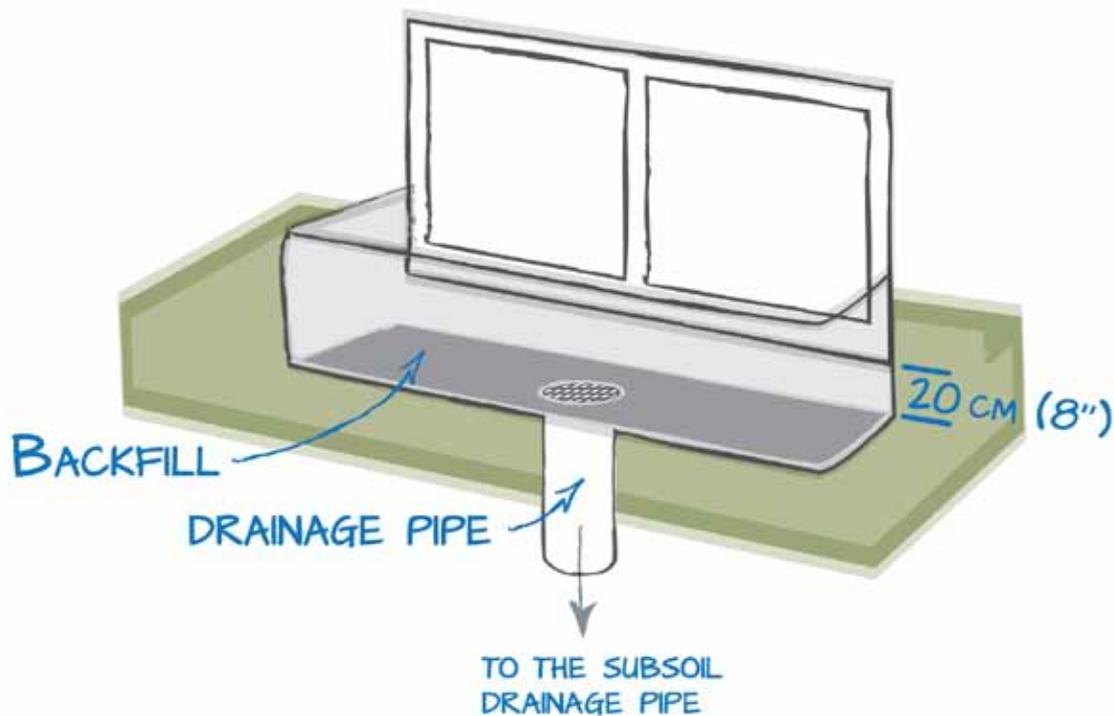
1. Remove the cover and unscrew the access plug (note: if you have a cast iron valve with a bolted cover, it's best to have a plumber do it).
2. Make sure the flap opens and closes freely. Remove any debris and check the condition of the gasket.
3. Close the valve, making sure nothing is blocking it from swinging open and shut.
4. Screw the access plug back on tightly and replace the cover.

It's that quick and easy. And best of all, this routine inspection can prevent major problems in the future.



A backwater valve is to sewer backups as a smoke alarm is to fire.

# CAUSE NO. 4: BASEMENT WINDOWS AND WINDOW WELLS



**Check the condition of the seals around the window and look for cracks around the window well.**

**Also, make sure there is at least 20 cm (8 in.) of clearance between the bottom of the window and the bottom of the window well and that the window well is free of debris, leaves and grass.**

Basement windows are very important because they can easily let in a lot of rainwater. To prevent water from leaking in through basement windows, be sure there is at least 20 cm (8 in.) of clearance between the bottom of the windows and the ground. If that distance is not practical, install a window well.

## HOW TO DO IT YOURSELF

For your safety, it's wise to contact a professional however, if you want to do it yourself, just get the right equipment and follow these simple steps.

### Tools:

- A round shovel to dig the window well
- A soil auger or post hole digger to dig a hole down to the top of the drain
- A measuring tape to check clearance
- A pencil to mark the position of the window well on the concrete wall and the location of the retainer screws
- Concrete screws to set the window well in place
- A drill and bits for drilling into concrete and setting screws
- A spirit level

## STEPS:

1. Dig the window well down to a depth of at least 40 cm (16 in.) below the bottom of the window.
2. Cover the bottom of the window well with 15 to 20 cm (6 to 8 in.) of granular backfill, leaving 20 cm (8 in.) of space under the bottom of the window.
3. Dig a hole to just above the subsoil drain that surrounds the foundation, then insert a perforated vertical drain pipe to draw water toward the drain.
4. Before filling in the bottom of the window well, place a large stone against the pipe to keep it in place. We recommend then placing a grid over the drain pipe to keep it from being blocked by a buildup of debris or a larger object.

## CAUSE NO. 5: PROBLEM WITH THE FOUNDATION

### A crack! Should you panic?

**Erratic temperature fluctuations (freeze, thaw, sudden mild temperatures, rain followed by snow) could be responsible for cracks in the foundation. With our extreme climate and with regional soils that can move enormously, most buildings will develop a foundation crack at some point.**

Here are some of the factors that can cause foundation cracks:

- settling because of ground movement;
- backfill – inadequate amounts or added too soon;
- frost heaving;
- blocked subsoil drain or no drain at all.

Cracks are often harmless, but they shouldn't be ignored.

#### THERE'S A CRACK IN THE PLASTER. WHAT DO YOU DO?

Remove a small piece of the plaster to find out if it's superficial or if the foundation is also cracked. If the wall is cracked—or worse, if the crack extends into the ground—call a foundation expert.

Generally, a vertical crack less than 3.2 mm (1/8 in.) wide is nothing major and can easily be sealed. However, a crack that is more than 3.2 mm (1/8 in.) or runs horizontally may indicate a bigger problem. In either case, we recommend calling a contractor.

#### WATCH OUT FOR WHITE RINGS!

White rings at the bottom of basement walls are often a warning sign of water seepage.

Known as efflorescence, these crystalline deposits are often found at the bottom of foundation walls. The deposits are caused by humidity passing through the foundation and drawing the salts in the concrete to the surface.

Do you see signs of efflorescence at the bottom of your walls or on the floor of your unfinished basement? If so, it means water has seeped in through the foundation. It's a good idea to contact foundation specialist right away to have the foundation and the drainage system checked.

## CAUSE NO. 6: SUBSOIL DRAINAGE PIPE (weeping tiles)

**A subsoil drain is an underground pipe laid at the foot of a building's foundations to drain excess groundwater while preventing water from collecting under and around the foundation of the building.**

If your yard is flooded every spring, particularly close to the house, chances are there's a problem with your subsoil drains. Make sure you keep a close eye on your basement at this time of year.

## CAUSE NO. 7: RETENTION TANK (holding ponds)

**If your property is in a rural area, if an underground body of water runs through it or if it's located below the municipal sewage system, your foundation most likely has a retention tank.**

Also known as a holding pond, a retention tank is a reservoir that temporarily holds water coming from the subsoil drain before releasing it into the building's drainage system.

It's usually under the stairs in the basement or near heating systems (e.g., water heater, central heating system).

To avoid an overflow, be sure to check the tank isn't blocked by debris. Keep an eye on the sump pump to make sure it's operating. And after a power outage, check the pump is working properly.

If you find a red silty deposit, it could be iron bacteria. Call a foundation expert!

These tips are provided for information purposes only. They are general in nature, and Desjardins Insurance cannot be held liable for them. We recommend using caution and consulting a professional for comprehensive, expert advice.