



Sewer backups & basement flooding tips

A quick look at our sewer systems:

The sewer systems are made up of three different components:

1. The public sewers are the main sewer lines that are on City property and are typically buried under the street. They collect and send waste water or storm drainage to an outlet or treatment facility.
2. The building sewer (also referred to as a sewer lateral or service connection) are pipes that cross your property and connect your home to the sewer main.
3. Private sewers are not owned by the City but they collect sewage or runoff from more than one property

Why do sewers back up?

The sewer systems are built to handle normal to above-average flows. Melting snow, groundwater table elevation, rainfall intensity and duration, or any combination of these occurrences can cause the sewer systems to exceed their capacity.

Even the weather and ground conditions (the ground's saturation levels, frost levels, etc.) in the days, weeks, and months leading up to a wet weather event influence the additional water placed within the systems.

What can cause a flood in my basement?

Basement flooding can happen for a number of reasons:

- **Heavy rainfalls, river or watercourse flooding.** The sewer system may be unable to handle the additional water, which means water and sewage can back up into your basement. The technical term for an overloaded sewer is a ‘sewer surcharge,’ ‘surcharging,’ or ‘overtaxed’ sewer.
- **Surface drainage** (rainfall, spring run-off, snowmelt) entering through surface openings, cracks in walls or the footing drainage systems.
- **Sewer lateral blockages** on private or public property. The pipe between your home and the sewer main can become blocked with debris. The cause can be a collapsed pipe, the accumulation of grease, paper, kitchen waste or other foreign objects such as dental floss or feminine hygiene products. Sometimes tree roots are to blame.
- **Main sewer blockages.** Sewers can collapse or become blocked by waste and debris. Sometimes the pumping stations located throughout the sewer main system can break down or malfunction. Construction on or near the sewer network can also be a cause.
- **Sewer backups** from overtaxing of the City sewer.

What is my responsibility?

As a homeowner, you are responsible for the following on your property:

- All drainage from your property (private sewers, plumbing, [protective plumbing devices](#), pumps, footing drains, building sewers).
- Grading, which is the actual shape of the ground surface, at the foundation and window wells. Water should drain away from the building and window wells.
- Roof drainage.

Remember to not send storm runoff and footing drainage directly or indirectly into the City's sanitary or partially-separated sewer systems. This is the most significant contributor to City sewer capacity limitations

and basement flooding for these systems. The water should be absorbed into surrounding natural lands instead of the City sewer system. Blockages on public property or in main sewers are usually the City's responsibility and they are addressed through regular City programs and on-call response processes.

What can I do to protect my home from basement flooding?

The following measures have been found to help, and are simple to do. Please refer to the preventative measures that can help to reduce basement flooding as well.

- **Slope ground away from your foundation** to allow rainwater to flow away from your home.
- **Seal** your window wells, cracks in floors and walls to stop water from entering your home.
- Have **downspouts** from your eave direct water at least 5ft. away from the foundation of your home or into a rain barrel. Downspouts should never be imbedded into the ground or connected to the sewer system or footing drains.
- Ensure your **footing drains** direct water to the storm sewer or sump pump, away from your foundation. Footing drains should not be connected to the sanitary sewer system.
- Ensure your [sump pump](#) is connected to the storm sewer system or that it empties onto your lawn at least 5 ft. from the foundation wall (not the laundry tub or footing drains).
- Ensure **water run-off** on your property is flowing to the ground surface or storm drainage system, not the sanitary system.
- Install [protective plumbing devices](#) (like backwater valves) that protect you against sewer backups. Inspect them regularly to ensure they are operating properly. The installation of these protective devices should be left to plumbing professionals.
- **Seal and tighten** your cleanout caps and [backwater valve](#) caps.
- Ensure **service connection pipes** between the municipal sewer main and your house are in good condition.

Every little bit of help from individual property owners goes a long way to an overall improvement for everyone.

What is the City doing?

The City continuously renews and rehabilitates its sewer systems. We look for opportunities to increase capacity and lessen flooding problems while undertaking routine rehabilitation projects. To deal with much of the flooding in the partially separated sewer areas.

What is protective plumbing?

Protective plumbing is various devices and/or means of providing some protection to homeowners against the entry of sewage to basements as a result of main sewer backups.

Installations designed in accordance with the specific site needs and installed properly can provide a barrier to the flow of backwater and can significantly reduce the potential of basement flooding.

Protective plumbing methods can range from installation of [sump pumps](#) and reconfiguration of [footing drainage](#) through to the installation of an approved full-port [backwater valve](#) on the building's sanitary drain connected to the main City sewer.