



Losses resulting from water damage and ingress are a growing problem affecting many individuals, organizations and businesses alike. Climate change, outdated infrastructure, spring melting, water runoff, torrential rains, snow, tree roots, broken lines, accompanied with other weather related issues, are resulting in an increased probability of water damage and or sewer backup related losses occurring. To some extent, these losses can be averted, or minimized by taking some practical steps.

First, it is important to understand certain definitions used:

What is a Backup?

A backup occurs when waste or debris has obstructed the plumbing system or lateral line allowing water to enter your building. When a backup occurs, the expense for cleanup and repairs is usually

your responsibility. Most backups can be cleared with minimal problems and may or may not result in any damages to your property.

Backflows

A backflow is less common than a backup and happens when water or waste effluent come up through a sink or bathtub drain or toilet. This may be as a result of the city main being blocked, allowing wastewater to back up into your lateral line and so into the building.

If you experience a backflow, call your local municipality immediately. Even if the cause of the backflow damage lies with the city, you must act quickly to manage the cleanup. Unlike a backup, a backflow can cause serious damage, including flooding of a room or an entire basement resulting in substantial damages to both building and contents.

In some areas, flooding can cause sewage from sanitary sewer lines to back up into buildings. These backups not only cause damage that is difficult to repair but also create health hazards. A good way to protect your facility from sewage backups is to install a backflow valve. Other valves that may be useful in preventing the problem of water damage and sewer backup are the following :

Backflow Valves

These valves are designed to block drainpipes temporarily and prevent flow into the structure. Backflow valves are available in a variety of designs that range from simple to complex.

Gate Valves

One of the more complex designs, a gate valve provides a strong seal, but must be operated by hand. The effectiveness of this valve will depend on how much warning you have of impending flooding.

Flap or Check Valves

Among the simpler valves are flap or check valves, which will open to allow flow out of the building but will close when the flow reverses. These valves operate automatically but do not provide as strong a seal as a gate valve.

Note: If you have a sump pump, it may be connected to underground drain lines, which may be difficult to seal off.

Sanitary Sewer Systems

Sanitary sewer systems are designed to handle three types of waste products:

- Used water
- Human body waste
- Toilet paper

Recommendations

So, what can be done to protect your facility from the damaging effects of water/sewer backup damage in the event that your local municipality's storm drains become overwhelmed?

The following guidance will assist you in utilizing some of the technologies available today in order to make your facility less vulnerable to damage. In order to keep your sanitary sewer working properly, follow these simple tips:

- Collect grease in a container and dispose of it in the garbage
- Place food scraps in the garbage for disposal with solid waste
- Place a wastebasket in the bathroom to dispose of solid waste. Disposable diapers and personal hygiene products do not belong in the sewer system.
- Use a Backflow Prevention Device (BPD) as needed.

In order to keep your sanitary sewer working properly, avoid the following :

- Pouring grease, fats, and oils from cooking down the drain
- Using the sewer to dispose of food scraps
- Using the toilet as a wastebasket for garbage or chemicals. These items can kill good bacteria used for sewage treatment, cost much more to treat, and can re-enter the water supply
- Planting trees with shallow, spreading root systems near your sewer lateral. Tree roots seek water sources, such as cracked sewer lines. Once the roots have penetrated the line through cracks, the roots can create a dense mat and trap materials.

Other considerations for protecting contents:

- Install wood skids on basement floors to be used as storage platforms. Keeping items elevated to a minimum of 6" will prevent a lot of damage.
- Use plastic bins to store items susceptible to water
- Store valuables in upper levels
- Keep items away from floor drains
- Install one-way butterfly valves on all floor drains
- Install steel modular shelving units
- Avoid using the basement as a "catch all" for contents
- Disconnect downspouts and drains from the city lines, thus reducing the amount of water entering the city's storm drains

For more risk control information, please consult an Ecclesiastical Risk Control Specialist in your region or visit www.ecclesiastical.ca

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