



THE CORPORATION OF THE CITY OF  
**ST. THOMAS**

## **BASEMENT FLOODING GUIDE**

*Causes and prevention methods to help homeowners identify flooding problems and improve drainage conditions*

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### **Potential Causes of Flooding**

#### **Weeping Tiles and/or Downspouts Connected to the Sanitary Sewer**

During a heavy rainfall, the water from the eavestroughs that are connected to the weeping tiles (foundation drains) through downspouts may cause rainwater or sewage to back up into home, if the weeping tiles are connected to the sanitary sewer system.



If the downspouts and weeping tiles are connected into the sanitary system they **must** be disconnected at the surface.

If the downspouts go into the ground you will need to disconnect them and reroute them to allow water draining from your roof **ONTO** the ground, not **INTO** the ground. A downspout can be disconnected as outlined below.

#### Downspout Disconnection

1. Cut the downspout above where it enters the ground and discard the piece you cut off.
2. Put a cap on the pipe that goes into the ground, and secure with a simple hose to prevent water and animals from getting in.
3. Install a flexible downspout extension piece at the end of the downspout. The piece of flexible pipe should be attached to the downspout with

2 screws to ensure that it does not fall off. It is recommended that the outlet of the flexible pipe be at least 1.8 metres (6 feet) away from the foundation of your home. It is also recommended to put a splash pad at the end of the extension.

Ensure the water from you downspouts is draining on to your own property, not on to your neighbours or City owned property. Be aware of creating icing hazards on walkways or roads in the winter.

Keep eavestroughs clean to prevent water from overflowing the eaves troughs and alongside the



foundation walls.

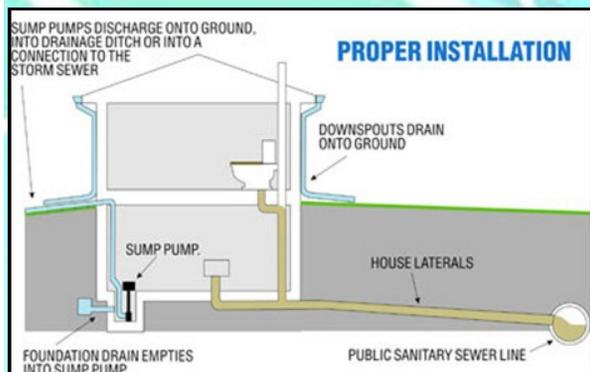
An alternative to having the downspouts extend onto the ground is having the downspouts discharge onto a rain barrel, except for the winter season. If using rain barrels, make sure the overflow extends away from the wall of your home to avoid water entering the basement.

#### **Sump Pump**

A sump pump pit and sump pump can be installed to transfer the rainwater from the basement to the ground surface outside your home, ensuring that you are not directing the water to your neighbour's lawn. If the sump pump is not discharged to the outside it may overload the sanitary sewer system and contribute to the basement flooding.

## Sump Pump cont'd

If your home already has a sump pump ensure that it is working properly. Your sump pump should be properly maintained. If there is a power failure you may wish to have a battery backup installed on your sump pump.



## Landscaping

Surface Water can cause basement flooding when the ground becomes saturated around your foundation walls and/or your weeping tiles are not working or are non-existent.

To correct this problem check that the ground is sloping away from your foundation walls to reduce the water entering through cracks or overloading the weeping tiles, directing downspouts away from the foundation walls.

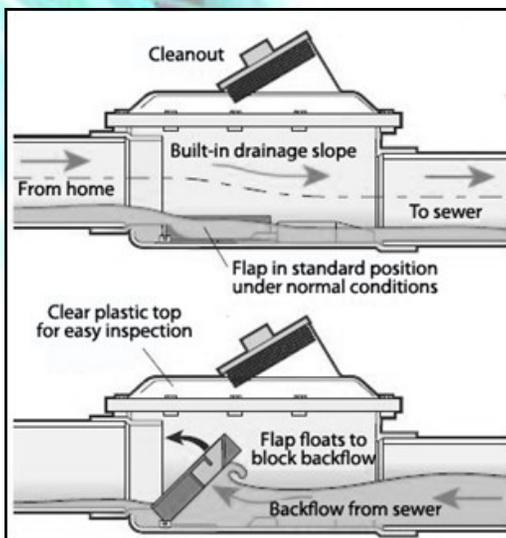


## Sewer Back-Water-Valve (BWV)

A sewer BWV is designed to protect your home in the event that the sewer system cannot handle all the flow or backs up, and sewage wants to come back into your home. A BWV is a one-way valve that acts as a defence against flooding, provided that the BWV is maintained.

### How Does It Work?

The BWV is comprised of a flap with small floats attached to it. If the sewer were to back up, the sewage coming back towards the valve would force the floats to rise which would then raise the flap blocking the sewage from continuing through the pipe.



### Cleaning Your Sewer BWV

It is recommended you clean your BWV **once a year**.

Your BWV should be located in your basement or lowest floor, and enclosed with a metal cover.



Before opening a sewer BWV put on rubber gloves. Any brushes used to clean the valve must be bleached or only used for this one purpose and stored in a safe place between uses. After completion, discard gloves and wash hands thoroughly as well as clothes.

Once you pull the cover off you may find your BWV buried in sand or gravel, in which case you will have to dig down with a small shovel or tool to expose the valve.

Remove the cap while being careful not to dislodge the O-ring located on the cap.

Using a brush scrub it clean underneath, on top, and along all the sides until it is deemed clean

