

...between the building and the municipal sanitary sewer system, a basement can be quickly flooded by the ground water entering the plumbing pit since it has no where to drain. This problem can be compounded by homes or businesses which have roof down spouts connected directly to the foundation drain tile system, or sump pumps which pump directly into the plumbing system (like the one on the front page). The municipality is currently developing a long-term strategy, mandated by the *New Brunswick Department of Environment and Local Government*, to eliminate the introduction of ground and surface water from its municipal sanitary sewer system. Once fully implemented, the benefits will be far reaching by reducing wastewater treatment costs, protecting homes, businesses and the environment from municipal sewer backups, and fostering future development.

### Is It Really That Important?

The most important lifeline of any home is the plumbing system - without it you would have a very difficult time performing activities of daily living. Imagine taking a shower, brushing your teeth, washing clothes or running the dishwasher if all that water had no where to go. Knowing how the system works is only half the battle - keeping it working is even more essential.

### Is There Anything I Should Do?

Property owners are responsible for the maintenance of any building sewer, so you should be aware of the following DOs and DON'Ts to prevent problems:

- DOs:**
- Place paper towels, feminine products, disposable diapers, dental floss, hypodermic needles, plastics, and other personal hygiene products in your household waste.
  - Use sink and shower strainers.
  - Collect grease and fats in a heat-resistant container, cool, and dispose of it in your compostable waste.
  - Choose the most appropriate method of disposal for food scraps: composting; or in your compostable waste.

- DON'Ts:**
- Don't use the toilet as a wastebasket for garbage, medications or chemicals!
  - Don't plant trees or large shrubs near sewer lines where roots can penetrate and create a dense mat.
  - Don't pour grease, fats or oils from cooking down the drain. These will collect and solidify in your lines.

- Don't connect French drains, roof gutters, sump pumps, and other flood control systems to your building sewer. These types of connections are illegal.

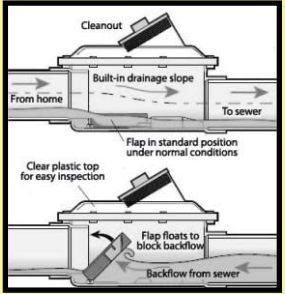
### How Else Can I Help?

Remember the all-important plumbing pit we examined earlier? You should routinely inspect it at least once a year to ensure that the P-Trap drain is clear of any obstructions. It is not uncommon for tree roots to migrate into this pit from outside the building and find their way into the drain. You should also ensure good access to the plumbing pit for inspections or in case of an emergency. Never cover the area with permanent flooring and never utilize the main cleanout as a connection for a toilet. In the event of a blockage, the main cleanout is the only way to access the building sewer.

Having a sump pump properly installed as a backup to your P-Trap drain is also a good idea in the event of a building sewer blockage.

Examine the outside of you home or business for signs of poor drainage or for defects in your gutters and/or downspouts.

And lastly, invest to have a qualified plumber inspect your system to determine if you are fully protected from a municipal or private sewer backup. Having the correct type of backwater valve, located in the proper location, is essential in protecting your property. In many cases, you often require more than one device in order to protect low level plumbing fixtures.



# Building Sewer Maintenance and Foundation Drainage



Information for Homeowners

### Questions? Contact Us:

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Village of Salisbury

Home of the Silver Fox

# Something just isn't right!

If you have ever been suddenly faced with a flooded basement or a sewer backup, it is not an event which any of us would wish to experience more than once in our lifetime. It is extremely disruptive, often happens at the most inopportune time, and leaves you fearing about when it is going to happen again.

Thankfully, there are steps you can take to minimize the risk of both a flooded basement or a sewer backup, and understanding how these systems work and knowing the proper terminology is the first place to start.

This information guide is primarily designed to educate homeowners on the common causes of flooded basements and sewer backups, how to provide proper foundation drainage, how a typical residential plumbing system works, what to do if you suspect a sewer backup, and how to properly maintain your system.

## Speaking the Same Language

In most rural communities there is a very close relationship between foundation drainage and your sanitary sewer connection, and understanding some common terminology goes a long way in being able to properly identify the components of a typical system. Not only will this allow you to more easily identify a potential problem, but it will also allow you to relay any concerns to a municipal official and/or a qualified plumber much more effectively.

### Municipal Sewer

A municipal sewer is any piped system, operated and maintained by a municipality or regional authority, which collects and conveys either sanitary wastewater, storm water or a combination of both. For the sake of this guide, we will refer to the following two types of systems:

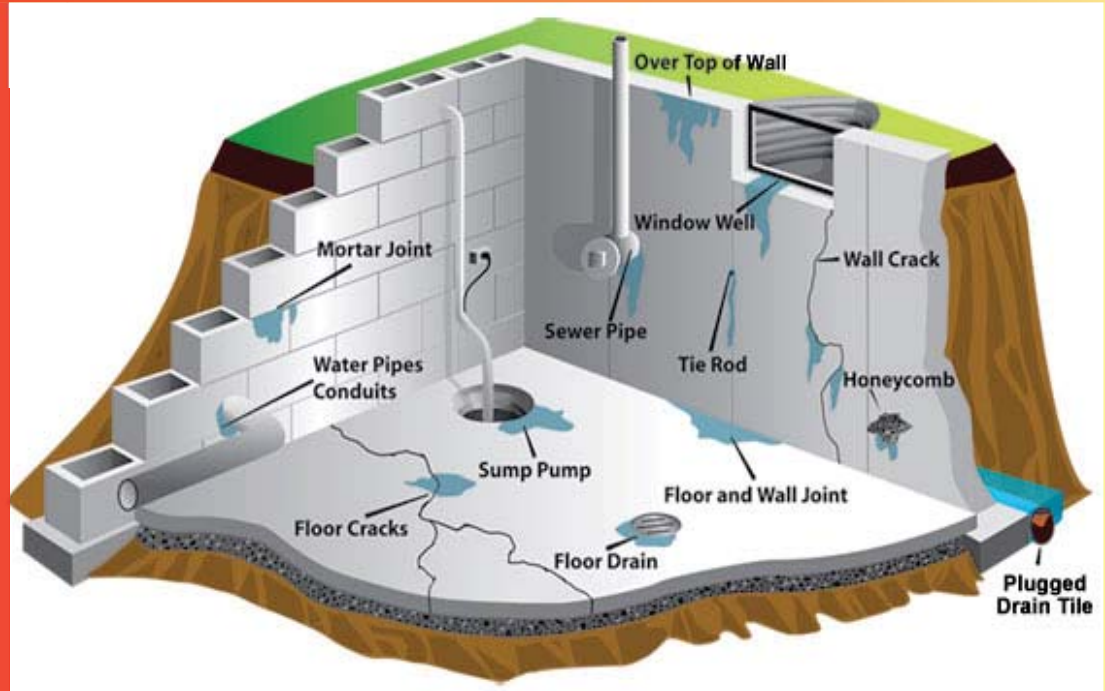
- Municipal Sanitary Sewer - collects/conveys plumbing waste from homes and businesses
- Municipal Storm Sewer - collects/conveys surface runoff from rainfall and snowmelt

### Building Sewer

This is the pipe which connects either the plumbing system or foundation drainage system of a home or business to the municipal sanitary sewer or municipal storm sewer system. This is considered a "private" connection and must be maintained by the property owner at their own expense.

# Common Sources of Basement Leaks

- ground slopes toward house
- cracks in walls of foundation or mortar joints leaking
- downspouts discharge against foundation
- window wells leak and/or trap water against house
- proper backwater valve(s) not installed
- unreliable or malfunctioning sump pump
- ineffective drain tile system



### P-Trap

A "U" shaped section of pipe located below or within a plumbing fixture, which retains a small amount of water each time the fixture is used. The water in the trap creates a seal which prevents the migration of sewer gas into the occupied space of the building.

### Backwater Valve

A device that prevents sewage in an overloaded municipal sewer system from backing up into your basement. The valve automatically closes if sewage backs up from the municipal sewer system.

### Municipal Sewer Backup

Occurs when the disruption of normal flow in a municipal sanitary sewer system results in the reverse flow of waste into a building sewer connection. Homes or business which are not protected by a backwater valve can experience waste flowing out of low level fixtures.

### Private Sewer Backup

Occurs when there is a blockage in a building sewer prior to its connection with the municipal sewer. Waste produced from within the home or business has no where to go and will begin flowing in the reverse direction through any low level fixtures.

## What Should I Be Looking For?



The image at the left depicts a very typical type of plumbing pit which you would find in most homes and businesses around the community. This would usually be found in the basement slab,

along a wall which is adjacent to the street from which the building sewer is connected to the municipal sanitary sewer system. The building drain tile, which is located along the outside perimeter of the foundation footing, essentially drains to this pit on the inside of the home or business. The ground water generated by the drain tile must then enter the "P-Trap Drain" in order for it exit the building through the building sewer and into the municipal sanitary sewer system. Although this type of system is very common in our community, it actually violates the Municipal Sewer By-Law since it introduces an excessive amount of ground water into a system which is only designed to collect and convey wastewater from homes and businesses. If there is ever a blockage in the building sewer connection...