

How does the PUC respond to Water Main breaks?

Are you curious about how the Peterborough Utilities Commission (PUC) responds to water main breaks and leaks? Do you want to know why some outages are short and some outages take longer to repair? Here are some key facts about water main breaks.....

What they are and how they happen?

Water mains are underground pipes that distribute water from reservoirs, pumping stations and the water treatment plant to the homes and businesses of Peterborough.

Water main breaks in Peterborough are most common within the winter months, primarily due to the low temperature conditions which cause the water within the soil to freeze and expand. This freezing activity can result in increased stress being placed on the pipe, which can cause cracks and/or breaks in the water main that tend to occur at weak points along the pipe.

Weak points within a water main can arise for a variety of reasons:

- External Corrosion (Pipe Age, Pipe Material, Soil Conditions)
- Improper Installation (Bedding Material, Fitting/Valve Installations)
- Differential Ground Settlement (Nearby Construction)



Peterborough benefits from good soil conditions that do not actively promote external pipe corrosion. The PUC also works to minimize the above conditions through redundant construction inspection processes as well as active monitoring and liaison of construction activities within the Peterborough area.

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However, water main breaks still occur due to underground excavations associated with construction activities. For that reason, **Ontario One Call** (1-800-400-2255) must be notified prior to any ground excavation activities taking place within your property.



Notification of residents

There isn't always time to inform residents of an outage, once the break has been controlled there will be a written or verbal notice given to residents informing them of the predicted timelines for repairing and reinstating their water.

Some breaks may cause longer outages than others.

There are two classifications of water main breaks, Category 1 and Category 2. Category 1 breaks are low risk breaks that maintain positive flow during excavation and have no evidence of contamination of the water main. Generally, Category 1 breaks can be repaired quickly with limited implications to the customer.

Category 2 breaks pose a potential risk of contamination and are usually more severe breaks. These breaks are reported to the Ministry of Health (MOH) as well as the Ministry of the Environment and Climate Change's Spills Action Center (SAC). If this

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type of break occurs the outage will be longer due to the increased repair and testing procedures required.

There are also a number of other factors that can affect the duration of water service outages due to a water main break:

- Size and material (Concrete, PVC, Cast Iron)
- Location (Limited Access, High Density)
- Traffic

Overall, The City of Peterborough's water distribution system is built of varying pipe sizes, if a break occurs on a large diameter trunk main it may require heavy machinery on site as well as, larger scale cleanup and traffic control efforts. Access to the water main can be difficult in some locations which may also lead to increased outage times.



Water main breaks can be dangerous. Safety is the first priority.

There may be instances when you see and are near a possible water main break. It is important that you keep your distance to ensure your safety. Water from the break may have washed away subsurface soil under paved areas or saturated the soil causing unstable conditions to occur.

If you see a potential hazard, be sure to contact the **PUC at (705) 748-9300**.

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How we repair water main breaks.

- Determine and locate the problem.
- Control the leak to reduce the risk to public safety and property damages by closing valves and isolating the damaged length of pipe.
- Contact emergency locate services to ensure no other utilities will be hit while the excavation for repair of the water main occurs.
- Once locates have been received, pinpoint and excavate for repair taking all precautionary measures to minimize trench material entering the water main.



What about scheduled outages?

Some outages are planned in advance to allow us to repair, replace, and make improvements to our water system. Some outages may be individual residences so that staff can perform work requested by customers such as replacing water services or installing meters.

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Each year Peterborough Utilities repair water mains through the process of cement mortar lining, structural lining, and complete replacement.

We make every effort to schedule these outages to be as short as possible and to affect the least amount of customers.

Affected customers are contacted over the phone or by hand delivered notice in advance of scheduled outages. We can have problems notifying people if their contact information is out of date. If you haven't already done so, please contact us with any updates to your contact information. You can e-mail your updated information to: info@peterboroughutilities.ca

Our staff is dedicated to responding to outages quickly. Your call will be answered 24/7 and Peterborough Utilities staff will work together to get your water back on as quickly as possible, while remaining safe. We understand that outages can be a major inconvenience and we work hard to minimize these disruptions to you.