



Watermain unidirectional flushing (UDF)



Affected residence are notified 2 days (48 hours) prior to flushing via door hangers. The Wards Councillors are notified of flushing program. Also, hospitals/clinics are notified to inform their home-based hemo-dialysis patients. Residents will have water during the flushing program however they are advised not to open their tabs as per the door hanger to avoid drawing sediments into their pipes.

Toronto Water is planning unidirectional flushing (UDF) of 150mm diameter watermain for the purpose to improve water quality and maintenance.

Unidirectional flushing program takes place during the months of May to October. Flushing operations will be carried out between 8:00 am to 2:00 pm, Monday through Friday during the day time, although this is subject to change. The purpose of a UDF program is to systematically and unidirectionally flush the water distribution system to improve water quality and to increase system capacity.

During flushing, residents may experience a drop in pressure or discolouration of their water. Any disruption should be of a short duration and should only occur while mains in the area are being flushed. The public will be encouraged to report the disruption to 311 Contact Centre in cases where loss of water or drop in pressure that lasts for an extended period of time.

What is Watermain Flushing?

Watermain flushing is the process used to clean watermain. Water system valves are turned off to isolate a section of the watermain. Water is then flushed through in one direction at high speed to produce a scouring action that removes built-up sediment. Clean water is always used to flush watermain. After flushing, the water exits through an attachment to a fire hydrant. An animation of unidirectional watermain flushing may be found on the City of Toronto [website](#).

What are water mains?

Water mains are underground pipes that carry water from the reservoir to your street.

Why are you "flushing" the watermain?

We clean watermain to improve water quality by removing sediment. Water travels slowly through the mains, causing sediment to settle at the bottom and build up over time. A change in direction or an increase in the rate of flow of the water in the mains (e.g., due to watermain breaks, or hydrant use for firefighting) can disturb the sediment and discolour the water.

How do you clean the Watermain during flushing?

We flush most of the watermain by forcing water through them at high velocity and discharging it through hydrants. This water

flow scours and cleans sediment from inside the mains. We leave the hydrant open until the water runs clear. The flushed water will be de-chlorinated before entering the catch basin.

How long does it take to flush the watermains on each street?

Flushing takes anywhere from 30 minutes to an hour. We require all taps to be turned off and no toilets flushed during the flushing time as indicated on your door hanger for individual households to ensure that the work is done properly.

How will I know when you are flushing watermains on my street?

We will notify you via door hangers 48 hours prior to commencement of work for each customer individually. If you live in a house, we will hand deliver a door hanger to your property two days before we clean the watermain on your street. The card will contain instructions and information on the program. If you live in an apartment, we will let your property manager/landlord know one or two days in advance, when the work will begin and how long it will take.

Can I use my water when you are flushing the watermains on my street?

Do not use your water or flush your toilet when we are cleaning the watermains on your street. Using your water or flushing your toilet could draw sediment into the water pipes of your building, into water filters, washing machines, hot water tanks, etc. Turn off any time-delayed water systems, such as dishwashers, coffee makers, and lawn sprinklers.

My in-home medical equipment requires water to operate. What should I do?

Can you reschedule the use of this equipment before or after the watermain flushing?

Make sure the cold water tap runs clear before connecting to the in-home water-dependant medical equipment.

What do I do if I need water during the time that I am not suppose to use water?

As a precautionary measure you may store a sufficient reserve of potable water for use during the flushing hours.

If I have time delayed appliances or water conditioning systems. What Should I do?

Please turn off all time delayed water line appliances during the flushing period. If you have water conditioning systems such as water softener or filtration system, you may want to shut off the water supply valve to these systems, until after the watermain flushing is completed.

Is the Fire Department aware of the watermain flushing?

Yes. The Toronto Fire Services (TFS) is informed of the flushing time, date, and location. Operations staff communicates with TFS each time a fire hydrant is "out of use" & when the hydrant is restored. Water for fire suppression is available from the water system at all times during the flushing program.

Will I notice anything different after you have flushed the watermains?

Your water may be discoloured. Water is sometimes discoloured after watermain cleaning, but this should not last long. Do not use discoloured water for any purpose that require clean water, such as preparing food and beverages, medical and dental procedures, or laundry.

- After flushing is complete, remove the aerator (a fine mesh grid) on your tap. Then, turn on a cold water tap, preferably the laundry tap, and let the water run for a few minutes. Do not choose a tap that has a water filter connected to it; otherwise, the sediment may clog your filter. Do not use a hot water tap because it could draw sediment into your hot water tank. Once the water runs clear place back the aerator.
- Catch some water in a light coloured cup or container to see if it is clear. You can use your water if it is clear.
- If the water does not clear within 5 - 10 minutes, wait two hours and try again.

How do I get rid of the discolored appearance?

Customers are advised to fully open their cold water faucets in their laundry tap, kitchen and/or bathroom to flush this water out of their service piping and plumbing lines. In most cases, the water should begin to run clear again within a minute. If it does not clear, please let us know and we will have a field crew sent to your house to investigate further.

What should I do if the water is still discoloured after two or three hours?

If this happens, call 311 Contact Centre 24/7 and we will send a crew to investigate.

What if someone drinks the water when it is discoloured?

Drinking discoloured water should not make you sick; however, it may not smell, taste, or look pleasant.

What else may I notice about my water after you have flushed the watermains?

Immediately after the cleaning you may notice that your water is cloudy or has a chlorine smell.

- Cloudy water - water is cloudy when air gets in it and makes tiny bubbles. These bubbles are harmless and will disappear if you let the water sit for a few minutes.
- Chlorine smell - we add enough chlorine to the water to keep it safe. You can easily get rid of the chlorine taste and smell by filling a container with water and keeping it in the fridge for drinking- much of the chlorine will leave the water overnight.

How will you monitor the water quality during the Watermain Flushing program?

Toronto Water staff will collect samples and test water quality from hydrants during the flushing program.

Why can't you flush the watermains at night?

It is safer for staff to work on the streets in daylight. Also, it is easier in the daylight to see when all the sediment has been flushed out and the water is running clear.

Where will you drain the water Used in the flushing program?

We will discharge the water into the street catch basins. We will be using an environmentally friendly product (sodium thiosulphate) to remove the chlorine from the water before it is discharged.

Does discharged water affect the environment?

No. The City takes special precautions to ensure that the quantity and quality of the water flushed is safe for disposal. Before doing any field work, the City investigates water disposal routes and ensures that they are of adequate capacity to receive the water and are not sensitive to the flow. In most cases, the water is sent to stormwater collection system, or to a drainage ditch. During flushing, the field crew monitors disposal of the water, reduces its energy to prevent erosion, and adds dechlorination pucks to remove any chlorine.

Do other cities have similar watermain flushing programs?

Many cities have some type of flushing program to clean their watermains. This is considered the best way to improve water quality and increase the reliability of the distribution system.

I lost water service. Why, and what do I do?

Though not intentional, this happens from time to time during the flushing program. During flushing, certain valves are closed to provide control over the direction of flow. It is likely that a valve closure resulted in loss of supply to your block. The field crew will be sent to your block immediately to investigate and identify which valves may have been inadvertently left closed and will be reopened.

Why does flush-water (hydrant or at the tap) appear discolored?

The color is due to the presence of solids that are scoured from the surface of the pipes. These may include sand, sediment, iron (rust), and manganese, all of which are naturally occurring and common to virtually every water system. At the levels that cause mild discoloration, these solids are not harmful, although they may impart an undesirable taste to the water.

Is the water safe to drink?

Yes, the City has maintained compliance with all provincial and federal drinking water quality standards. The City performs frequent monitoring throughout the system to ensure the safety and aesthetic quality of your water.

How will you pay for the watermain flushing program?

Funds from the water utility rates will pay for this program. Water rates will not be increased to pay for this maintenance program.

Will I be paying for the water used in flushing?

No, each residence and business is individually metered at the service connection to determine consumption. Your utility bill is based on your specific meter readings.

Is watermain flushing a waste of water? Is this counterproductive to conservation?

No. We are using a unidirectional flushing technique, which uses less water than conventional flushing. The City strongly values, encourages and practices water conservation measures. In developing the flushing program, the City has considered the impact of water use and weighed it against the known benefits of flushing. While a fair amount of water is used and is necessary to create an effective scour, the City uses a flushing practice called (unidirectional) watermain flushing that is specifically designed to reduce overall water usage. Also, in a given neighborhood, flushing is conducted relatively infrequently - generally once every few years - so over the long run the amount of water used is relatively small.

Was the City Councillor notified?

Yes. A notification is sent out to City Councillors in each ward prior to flushing from Toronto Water Director, Bill Shea.

Contact Info:

[Contact List - Toronto Water - District Operations - Operations Co-ordination - watermain flushing](#)

