

**What are water mains?**

Water mains are underground pipes that carry water from the pumping stations to your property.

**Why are you cleaning the water mains?**

We need to clean water mains to improve water quality by removing sediment. Over the years small amounts of sediment builds up on the bottom of the pipe. In addition, scale from Calcium, Iron, and Manganese build up on the inside of the pipe interfering with the flow of water and the taste and quality of the water. We also have a problem with our Disinfection Byproducts caused by the reaction of Chlorine, our primary disinfectant, with organic matter during the treatment process. The longer water sits in the lines, the more of these byproducts build up. Too many Disinfection Byproducts can cause problems. Flushing removes a large percentage of these.

**How do you clean the water mains?**

We clean the water mains by forcing water through them at a high speed and discharging it through hydrants. A change in the direction or rate of flow of the water in the mains (e.g., due to a water main break or hydrant use for firefighting) can disturb the sediment and discolor the water. This water flow scours sediment from inside the mains. This flushing operation continues until the discharge water at the hydrant runs clear.

**When will you clean the water mains?**

We will clean water mains in different areas of the City each year, weather permitting from 8:00 a.m. to 4:00 p.m. There are 100 miles of water mains in Mount Vernon. Flushing has never been consistently done in Mount Vernon. We are not sure how long it will take to flush the entire system.

**How long does it take to clean the water mains on each street?**

It takes about 2-4 hours to flush the water mains on each street. After the flush, the water can be cloudy for up to 12 hours.

**How will I know when you are cleaning the water mains on my street?**

We will post a notice in The Democrat before we start cleaning. We will also have the flushing schedule posted on the website. We will put door hangers out a day or two before we flush. When we begin, we will place signs at either end of your street that say, "Water Main flushing in This Area 8:00 a.m. to 4:00 p.m."

**What if I don't want the mains in my neighborhood cleaned?**

Customer outrage is one of the reasons why flushing hasn't been done on a regular basis. However, we must begin a regular flushing schedule to protect our customers. We are also **required** to flush by IDEM.

**If you live in a house**

We will hand deliver a notice to your door one or two days before we clean the water mains on your street. The notice will have more 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.

**If you operate a business**

We will contact you one or two days in advance to let you know when the work will begin and how long it will take. We will contact you again to let you know when we have finished cleaning. There will also be notices in The Democrat and a schedule posted on the City website.

**Can I use my water when you are cleaning the water mains on my street?**

The City recommends not using the water when we are cleaning the water mains on your street. Using your water or flushing your toilet could draw sediment into the water pipes in your building and into water filters, washing machines, hot water tanks, etc. Turn off any time-delayed water systems, such as dishwashers, coffee makers, and lawn sprinklers. As this is part of normal maintenance, The City will not be responsible for any damaged plumbing or clothing.

**Will I notice anything different about my water after you have cleaned the water mains?**

Water is sometimes discolored or milky looking after water main cleaning, but this should not last long. Do not use discolored water for any purposes that require clean water, such as preparing food and beverages, medical and dental procedures, or laundry.

Turn on a cold water tap and let the water run for a few minutes. Do not choose a tap that has a water filter connected to it, or the sediment may clog your filter. Do not use a hot water tap because it could draw sediment into your hot water tank. Once again we are not responsible for any damage.

Catch some water in a light-colored cup or container to see if it is clear. You can use your water if it is clear.

If the water does not clear in 5 minutes, wait 30 minutes and try again.

**What should I do if the water is still discolored after 3 to 4 hours?**

If this happens, contact us at 838-3726 and a City representative will contact you.

**Can I drink the water when it is discolored?**

If the water is discolored, we recommend that you boil the water before drinking it. Although, if you wait a bit, the water will clear up on its own.

**What else may I notice about my water after you have cleaned the water mains?**

Immediately after 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.

**Are you monitoring water quality during the cleaning program?**

Yes, our staff will randomly collect samples and test water quality from hydrants, homes, and businesses during the cleaning program.

**How can I find out if you will be cleaning the water mains in my area of the City?**

We will post notices in the Democrat and will leave door hangers a day or two before flushing begins. We will also set up sandwich boards on the streets that we are flushing.

**How many water mains are you cleaning this year?**

We are cleaning about 100 miles of water mains this year. We hope to hit each main 3 times this year.

**Why can't you clean the water mains 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.

**Is water main cleaning a waste of water?**

Flushing is done for Public Safety. It is required by the State of Indiana and will dramatically improve the quality of your drinking water.

**What is unidirectional water main flushing?**

During unidirectional flushing, water system valves are operated to create one-way flow to the water main to be cleaned. A hydrant connected to the main is then opened to remove the built-up sediment. This type of flushing increases the speed of the water flow in the main to about six feet per second (it is normally less than 1 foot per second). This high speed produces a scouring action in the mains, removing sediment deposits. The flushing starts at a clean water source (e.g., the water pumping stations or large distribution main) and moves towards the outer limits of the City. This ensures that clean water is always used to flush the mains.

**What is conventional water main flushing? (The older method of flushing water mains)**

In conventional flushing, the water used to flush the main does not always begin at the clean water source (the water pumping station), and the speed of the water is much lower than during unidirectional flushing. As a result, more water is required to thoroughly clean the water mains. We will begin this type of flushing as we finalize our game plan for the unidirectional flushing.

**Are there other benefits to using the unidirectional flushing technique?**

Yes, in addition to removing more sediment and using less water than conventional flushing, unidirectional flushing tests and exercises the water system valves and hydrants.

**Where will you drain the water used in the cleaning program?**

In the areas we are cleaning this year, we will discharge the water into the street catch

basins, which typically flow to the land drainage system and into the river. We will also collect and test samples to determine the quality of the water we discharge to the catch basins, which will run to the river outfalls where testing and sampling will also be done.

**Do other cities have similar water main cleaning programs?**

Cities in Indiana are required to have some type of flushing program to clean their water mains (e.g., conventional flushing or unidirectional flushing). This is considered the best way to improve water quality and increase the reliability of the water distribution system.

**Is this the first time Mount Vernon has had a water main cleaning program?**

We have always used conventional flushing to clean water mains in specific neighborhoods and correct water quality problems. Several unidirectional flushing tests were carried out in 2006 for our water modeling project. The city has never had a city-wide scheduled flushing program.

**Will the water main cleaning program become a permanent program?**

Yes, we plan to flush 3 times this year to clean all water mains in the distribution system. After that, water mains will be cleaned once or twice a year as we determine which is necessary.

**How will you pay for the water main cleaning program?**

Water utility revenue funds this program. It will NOT affect customer rates or bills.