

It is a rare event when discolored water appears at your home or work, but it does happen. There can be many reasons, but discolored water usually originates in the water distribution system or private plumbing systems. Corrosion or rusting of the interior surfaces of metal pipes is a primary source of discoloration and particles that can appear in your water. There are several possible situations that can cause this material to be dislodged. The most probable of these causes are listed below, along with the steps you can take to deal with a temporary problem.

- **Step One:** Determine the source of the dirty water- is it the hot or the cold water?
First try flushing the toilet, and look into the bowl. Since the toilet uses only COLD water, if the bowl is clear, then the problem is with the hot water. If the bowl water is dirty, then the cold water is affected, and activities outside your home should be considered as the cause. If the hot water is the source, the hot water tank must be flushed clean, according to the manufacturer's recommendations. If the cold water is the source, the cold water needs to be flushed. Don't continue to flush the toilet after the initial test. Don't use the hot water. Prevent further accumulations of sediment in the hot water tank by not using the hot water. If the dishwasher or clothes washer is running, stop it mid cycle until the water is cleared up.
- **Step Two:** Look outside.
If distribution system repair or maintenance is under way, this may be the cause. Also look for street sweepers or anyone else who may be using a fire hydrant.
- **Step Three:** Flush your plumbing.
Open the cold-water faucet in the bathtub all the way open, full force, with the drain open, for about 10 minutes. Most dirty water situations will clear up in this time. If not, turn the water off, wait 10-15 minutes, and repeat the flushing again.

POSSIBLE CAUSES FOR DIRTY WATER

Increased Demand on Water System in Seasonal Communities

Due to the seasonal nature of Harwich and Cape Cod, there is an annual influx in population that generally begins Memorial Day weekend. The water system will settle with the new demand and the water will become clear again but it may take a few days.

Main Breaks

Water is delivered to your home or business through a network of underground pipes referred to as the distribution system. The principal pipe or conduit is called a main. Water mains in this distribution system can fail due to age, corrosion, high pressure surges, defective materials, or damage by construction work. Fire hydrants can also be broken off by vehicles. When a main breaks, the increased velocity of the water can pick up dirt and other materials that normally settle to the bottom of the pipes.

Fires and Fire Hydrants

The high velocity of water used to fight fires and to test fire hydrants can pick up sediment as described under Main Breaks.

Construction Activities

Sometimes mains must be replaced or cleaned. Also, new buildings require connection to the existing water main. These and other similar activities may disturb the accumulated sediment and result in temporarily dirty water.

Dead Ends

Every distribution system has mains that must be ended due to physical obstructions (rivers, roads, etc.) or city design features (sports complexes, cul-de-sacs, etc.). This results in a "dead end" that does not connect back with another main. Low usage in these areas results in sediment accumulation. Over time the lack of circulation can result in the appearance of discolored, foul tasting stale water.

Pipe Replacement

Harwich Water crews install or replace an average of 70,000 feet of pipe a year. Replacements are done for various reasons, including to repair or avoid main breaks; replace corroded pipe; alleviate water quality problems; increase available hydrant fire flow; and improve overall area delivery.

The water distribution system contains more than 3,000 miles of water mains. Every improvement and replacement project is different due to the conditions at the project site. When Harwich Water is working in your neighborhood, you should receive a notice describing the project and providing contact information, in case you have questions. To inquire about a specific project, please contact the project foreman identified on this notice. Or, call 508-432-0304 for more information on the project.

Once work begins to replace a pipe, it may be delayed or interrupted because the crew laying your main is responsible for emergency repairs of water-main breaks, should one occur elsewhere. If a crew is called away to repair a main break, they might be off the project site for a few days, a week, or longer.

Notes:

** The service line from the street-side shutoff to a residence or business is owned by the customer, and its repair and maintenance is the customer's responsibility, not Harwich Water's. As a courtesy to the customer, if personnel are available Harwich Water repairs leaks between the main in the street and the street-side shutoff valve to reduce water loss. If during repairs or main replacement and in some other cases an existing service line is found to include lead, a new service line is installed from the new water main to the shutoff valve by the street.*

*** Harwich Water covers all jobs with temporary paving at the end of every day or after repairs are made. Permanent paving is scheduled after the entire project is complete and may be delayed due to weather or to combine projects into one large paving job.*

After the crews are gone

After a main repair, you may see reddish discoloration in the water caused by small amounts of iron compounds flushing out of the system. These iron compounds are not hazardous, and you can clear up the discoloration by running the cold water for a few minutes. Sometimes, particles of iron can get into your aerators, causing a loss of water flow. If this happens, take off the aerator on a faucet. If you see hard particles in it, rinse them off and do any other aerators as well. Don't forget the shower head. You can avoid clogging issues by running the cold water in the bathtub or an outside spigot.

FREQUENTLY ASKED QUESTIONS RE: INTERRUPTIONS IN YOUR WATER SERVICE**When Harwich Water construction crews are in the area:**

We may be flushing hydrants or repairing the water pipe due to a water main break, or we may be installing a new water pipe. It's also possible there may be a brief interruption in service if we are working on the meter. This is usually no more

than a few minutes, and we will attempt to notify you before we turn off the water. In any case, your water service may have been disturbed, or the appearance, smell, and/or taste of your water may be different.

Is the water still safe for drinking?

Most likely it is. The differences are usually only aesthetic (discoloration and metallic taste). Harwich Water flushes hydrants to test their proper functioning for fire flows, but also periodically to freshen the water supply particularly where the water pipe acts as a "dead-end source."

Will I be notified before my service is interrupted?

You will receive a letter from Harwich Water when work is scheduled on your street. However, when we respond to main breaks or other emergencies it's not possible for us to provide advance notice. Whenever possible our office will notify you via a voice broadcast message. Please be sure that we have your phone number so you receive these messages. Email your name, Harwich address, and phone number you'd like to receive voice broadcast messages to customerservice@harwichwater.com or call our office at 508-432-0304. Please keep in mind we may not notify customers during late night or early morning hours.

What can happen when the water service has been disturbed?

As in a water main break or a hydrant usage, air pockets often form within the water pipes. Natural mineral scale is on the inside of the pipes, and disturbances in the flow of the water (such as air pockets) from the above mentioned activities, often cause mineral scale to slough off and discolor the water or produce particulate matter. If you notice this, especially in your toilet reservoir (toilet reservoirs or tank usually indicate the quality of the water coming into the home), please give us a call. Try to avoid using hot water during this event, otherwise flushing the hot water system may be necessary.

What happens when a main break occurs?

Our crews isolate the pipe by shutting off valves and temporarily placing the water supply out-of-service for the time necessary to make the repairs. After repair or replacement of the broken pipe, it is thoroughly cleaned, disinfected, and flushed, prior to being reconnected to the system. New pipe, like any new container, can produce a new pipe taste and/or odor. This is not uncommon and will usually go away after a few weeks. It is not in any way harmful, only aesthetically displeasing.

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For additional information please contact our office at 508-432-0304.

Note: Discolored water in the bathtub (hot water only) may indicate a problem with the hot water tank, which is the responsibility of the consumer.