

# WATER DISTRIBUTION

Water Distribution is responsible for the operation and maintenance of approximately 3,300 fire hydrants and approximately 5,000 distribution valves within the 377 miles of water main system. Monitoring water usage, repair of water mains and structures, replacing lead and galvanized water services, and biannual system flushing are objectives to assure a continuous and adequate supply of water, reasonably free from objectionable taste, color, odor, or sediment. Water meters measure the quantity of water used by our customers. Water meters are serviced, replaced and tested on a scheduled basis to assure accuracy and to conform to the standards specified by the Public Service Commission.

## Q & A

**Q: Why does my drinking water sometimes taste or smell funny?**

**A:** There is usually one of three things happening if water tastes or smells unusual:

1. Algae and tiny fungi grow in the water source and can give off nontoxic chemicals that can cause unpleasant taste and odors in the drinking water. This happens most often in late summer.
2. Water heaters set below 140°F can be cool enough to grow certain organisms in the holding tank. These organisms can cause off-tasting or odorous water. Note: Setting the temperature on your water heater any higher than 120 degrees can cause scalding. If you wish to set the water temperature higher to kill off germs, a mixing valve can be installed on the outlet side to bring the water temperature back down to a safer level for use in the home.
3. If you have a water softener, the treated water coming from it will taste different than untreated water fresh from the city's watermain.

**Q: Is water with chlorine in it safe to drink?**

**A:** Chlorine is the most common disinfectant used in the United States. It is used by 75% of large water systems and 95% of smaller systems. Chlorine has been added to drinking water to kill germs since 1902. The amount of chlorine used is sufficient to kill germs but is not enough to harm humans or pets. Chlorination of public water supplies was listed by Time magazine as one of the 50 greatest achievements of the 19th century, leading to great success in reducing water-borne diseases. Chlorine is added to drinking water at the water filtration plant.

**Q: Is there a reason why fire hydrants are different colors?**

**A:** Hydrants of different colors have varying degrees of available water pressure. Water pressure needs vary for residential, commercial and industrial properties and it is also important for fire suppression. The color codes help to identify the available flow rate at a particular hydrant. Typical flow rates are: Red hydrants have up to 500 gallons/minute, orange hydrants up to 501-1000 gallons/minute, green hydrants up to 1001-1500 gallons/minute and blue hydrants >1500 gallons/minute.

**Q: Sometimes my water is discolored. What causes this?**

**A:** If it is reddish-brown in color, it is non-toxic, but it can stain laundry. Possible causes are:

1. Water main flushing—The city may be flushing water mains in the area. Water mains are flushed annually to remove rust and other substances.
2. A fire in the neighborhood or maintenance on the water lines can cause reddish-brown water.
3. The water heater is often a source of water quality problems. The storage tank in the water heater should be flushed out periodically. Some water heater manufacturers recommend flushing the tank every 6 months. Refer to the owner’s manual of your water heater for instructions.
4. The water piping carrying your drinking water from the street leading to your home, or piping within your home may be reacting to natural minerals or deposit buildup creating reddish-brown colored water. Some areas in the distribution system, such as those at dead-end lines or those served by unlined cast iron water mains, may be more susceptible to this type of problem.
5. White, chalky water may be an indication that the dip tube in the inlet side of the water heater is deteriorating. If this is the case, you will also find that you have less hot water supplying the home.
6. If you are experiencing any of these problems and your neighbors are not, it is likely the problem is being caused by the piping inside your home, your water heater or your water lateral service.
7. Dirty water solution: Run cold water through a “non-screened” fixture, such as those found in bathroom tubs. Running water for 30-60 minutes in this fashion will often times eliminate any discoloration.

**Q: Why does the chlorine smell stronger in my water during certain times of the year?**

**A:** The level of chlorine in your drinking water is constantly monitored and does not change from the target level. At certain times of the year, some of our customers report that their water smells more like chlorine than other times. Chlorine can react with substances, such as algae, in the source water. The specific types of algae that cause this phenomenon only grow during certain times of the year. The combination of the algae and chlorine create a stronger chlorine smell at the tap. This is usually what makes the smell of chlorine more noticeable, particularly in late summer.

**Q: Where does our City water come from?**

**A:** The City of Appleton obtains its water from Lake Winnebago and treats it with a multiple-step process that removes illness-causing micro-organisms and contaminants. Water Treatment is managed under the Director of Utilities.

\* \* \* \* \*

For more information please visit: [www.appleton.org](http://www.appleton.org) or call 832-5580.