

## Water Main Flushing

**D**istribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen, disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You may have brown colored water if you have run the tap. You should avoid tap water for household uses at that time. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use and avoid using hot water, to prevent sediment accumulation in your hot water tank.

We conduct our flushing during various times. Please contact us if you have any questions or if you would like more information on our water main flushing schedule.



# 2014 Annual Drinking Water Quality Report for the Town of Williamsburg



Town of Williamsburg Water Department  
413-268-8430  
Water Utility ID # MA 1340000

### Water & Sewer Commission Members

William Turner-Acting Chair

Ken Taylor-resigned 11/14

James Hyslip

Jerry Roberge-Clerk

Eric Cerreta

Don Hultman

## Where Does My Water Come From and How Is It Protected?

Our water supply comes from ground water at the South Street pumping station. At our South Street site, we have two wells, treatment facilities, and storage tanks. We treat water with sodium hydroxide to adjust the pH to help make the water less corrosive to the distribution system and to the plumbing in the homes. We are also now chlorinating the water. We own all the land in the Zone #1 area and a large portion in Zone #2. This helps to protect your water supply from contaminants. The Department of Environmental Protection (DEP) has prepared a Source Water Assessment Program (SWAP) Report for water supply source(s) serving this water system. The SWAP Report notes the key issues of the activities in the Zone 1, Residential uses, transportation corridors, agricultural activities and Comprehensive Wellhead Protection Planning in the water supply protection area. The SWAP Report recommends beaver control, prohibiting all non-water supply activities, ensuring that all residents upstream are aware of Best Management Practices with respect to household hazardous materials and lawn chemicals, protecting the floor drain located in the well house, no storage of pesticides, fertilizer or road salt within Zone 1. Williamsburg Water & Sewer Commission plans to address the protection recommendations by working on educating the residents to BMP, monitoring the beaver activity, monitoring the livestock on neighboring properties, and working on a Comprehensive Wellhead Protection Plan. Residents can help protect sources by: practicing good septic system maintenance, supporting water supply protection initiatives at the next Town Meeting, taking hazardous household chemicals to hazardous materials collection days, limiting pesticide and fertilizer use and using buffer strips to prevent animals from accessing Unquom Brook and prevent pasture runoff. The complete SWAP Report is available at the Town Clerk's Office or online at [www.burgy.org](http://www.burgy.org). If you have any health concerns relating to the information in this report, we encourage you to contact your health care provider. For more information about this report, or for any other questions relating to your drinking water, please call William Turner, Acting Chairman, at (413) 268-8405 or (413) 268-8430.

## Things You Can Do To Protect Your Water Supply

- ❖ Reduce the amount of trash you create – reuse
- ❖ containers, recycle plastics, aluminum, and glass
- ❖ Do not litter—and yes, this includes cigarette butts
- ❖ Dispose of waste oil properly, never in drains or on the ground
- ❖ Check your car for oil leaks – repair leaks quickly
- ❖ Plant drought-tolerant native plants in your yard, in place of grass
- ❖ Apply pesticides and fertilizers minimally and properly
- ❖ If you walk your pet near the reservoir be sure to pick up after their waste
- ❖ Do not flush old medication
- ❖ Use alternative deicers such as calcium magnesium acetate, and avoid table or rock salt

## COMMUNITY PARTICIPATION

You are invited to participate in our public meetings and voice your concerns about your drinking water. The Water & Sewer Department has five elected members and they meet every other week, except in June, July and August when meetings are held once monthly. Most meetings begin at 7:00 PM in the Town Office Building at 141 Main Street, Haydenville, MA. You may call the Town Office at (413) 268-8430 for scheduled meeting dates. Information is also available @ [www.burgy.org](http://www.burgy.org)

## TABLE DEFINITIONS

**Maximum Contaminant Level (MCL)** - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG)** - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Treatment Technique (TT)** - A required process intended to reduce the level of a contaminant in drinking water

**Action Level (AL)** - The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

**Total Coliform** - Five (5) bacteria samples were taken each month.

**90th Percentile** - Out of ten (10) homes sampled, nine (9) were at or below this level

**ppm** - parts per million

**ppb** - parts per billion

## Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring mineral, and in some cases, radioactive material. It can pick up substances resulting in the presence of animals or from human activity. Contaminants that may be present in source water include:

**Microbial Contaminants**-such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**Inorganic Contaminants**-such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, Industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.

**Pesticides and Herbicides**-which may come from a variety of sources such as agricultural, urban storm water runoff, and residential uses.

**Organic Chemical Contaminants**-including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

**Radioactive Contaminants**-which can be naturally occurring or be the result of oil and gas production and mining activities.

## Copper

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor. **Flush your tap for 30 seconds to two minutes before using tap water.** Additional information is available from the Safe Drinking Water Hotline at 800-426-4791.

	ACTION LEVEL	90TH PERCENTILE	NUMBER OF SAMPLES	NUMBER OVER LIMIT	TEST DATE
LEAD	0.015 mg/L	14 ppb	10	0	8/25/14
COPPER	1.3 ppm	15 ppb	10	0	8/25/14

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Town of Williamsburg Water Commission is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

	Highest # Positive in a month	MCL	MCLG	Violation (Y/N)	Possible Source of Contamination
Total Coliform October 2014	5	1	0	Y	Naturally Present in the Environment

Fecal Coliform or E.coli	0	*	0	N	Human and animal fecal waste
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*\*Compliance with the Fecal Coliform/E.coli MCL is determined upon additional repeat testing.*

### NATURALLY OCCURRING BACTERIA

The simple fact is, bacteria and other microorganisms inhabit our world. They can be found all around us: in our food; on our skin; in our bodies; and, in the air, soil, and water. Some are harmful to us and some are not. Coliform bacteria are common in the environment and are generally not harmful themselves. The presence of this bacterial form in drinking water is a concern because it indicates that the water may be contaminated with other organisms that can cause disease. Throughout the year, we tested 81 samples for coliform bacteria. In that time, seven (7) samples in a three month period came back positive for the bacteria. Federal regulations now require that public water that tests positive for coliform bacteria must be further analyzed for e-coli bacteria. E-coli are present only in human and animal waste. Because these bacteria can cause illness, it is unacceptable for E-coli to be present in water in any concentration. Our tests indicate no E-coli is present in our water.

## DID YOU KNOW...?

### When was drinking water first regulated?

The Safe Drinking Water Act (SDWA) of 1974 represents the first time that public drinking water supplies were protected on a federal (national) level in the U.S. Amendments were made to the SDWA in 1986 and 1996.

### How much water do we use every day?

The average person in the U.S. uses 80 to 100 gallons of water each day. (During medieval times, a person used only 5 gallons per day.) It takes 2 gallons to brush your teeth, 2 to 7 gallons to flush a toilet, and 25 to 50 gallons to take a shower.

### When was chlorine first used in the U.S.?

In 1908, Jersey City, New Jersey, and Chicago, Illinois, were the first water supplies to be chlorinated in the U.S.

### Seventy-one percent of Earth is covered in water: how much is drinkable?

Oceans hold about 96.5 percent of all Earth's water. Only three percent of the Earth's water can be used as drinking water. Seventy-five percent of the world's fresh water is frozen in the polar ice caps.

### How much water is in our atmosphere?

Forty trillion gallons of water are carried in the atmosphere across the U.S. each day.

### How much water is in our bodies?

Water makes up almost two-thirds of the human body and 70 percent of the brain. Four hundred gallons of water are recycled through our kidneys each day.

### How long can a person go without water?

Although a person can live without food for more than a month, a person can live without water for only approximately one week.

### Is tap water cheaper than soda?

Yes! You can refill an 8 oz. glass of tap water approximately 15,000 times for the same cost as a six-pack of soda pop. And water has no sugar or caffeine.

## WATER QUALITY TESTING RESULTS

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### MCL VIOLATIONS

We are committed to providing you with the best water quality available. However some contaminants that were tested last year did not meet all applicable health standards regulated by the state and federal government. Due to contaminant violations of total coliform bacteria during the month of October 2014 our system took the following corrective actions:

- We collected additional samples.
- We announced public notification by newspaper, posting notices etc.
- We chlorinated the wells and will continue to do so

Our water system and MassDEP monitor and record the effectiveness of actions taken in response to contaminant violations.

The health effect statement for this contaminant is listed below.

### Health Effects Statements

**Total Coliform:** Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Regulated Contaminant (Units)	Date(s) Collected	Highest Result or Highest Running Average Detected	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Sources of Contamination
Nitrate (ppm)	12/29/14	0.49	N/A	10.0	10.0	N	Animal Waste Fertilizer Septic Systems
Sodium	12/29/14	3.9 mg/L	N/A	20**		N	Natural sources, highway treatment with salt, by product of treatment process
Perchlorate	9/5/14	.08	.08	2.0	N/A	N	Rocket Propellants, Fireworks, Munitions, Flares
Magnesium*	4/16/14	ND	ND	0.0020	0.05 SMCL		Naturally Occuring

\* This was a baseline test for our system \*\*DEP established limit, no current MCL

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and some infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on lowering the risk

# How to Detect a Water Leak

If your water usage is higher than you believe it should be, please check the following steps:



**Step #1** Read the water meter the last thing in the evening, after all usage of water for the night. Again, before using any water in the morning, re-read the water meter. If there is any difference in the reading, a water leak is indicated.

**Step #2** Check all toilets for leaks by putting household blueing, found in the laundry

section of supermarket, or food coloring in the back of the toilet storage tank. This should be done the last thing at night. If any blueing or color appears in the bowl in the morning, it could only get there by the toilet leaking by. Check the rubber stop in the back of the storage tank for cracks and replace.

**Step #3** If toilet does not have any leaks, by following directions in step number two, check all faucets for leaks.

**Step #4** If you have any outbuildings connected to the household plumbing system or a garden serviced by an underground faucet, shut them off. Now, follow instructions under step #1 and see if water meter reading is the same in the morning as it was the previous evening. If there is no change in the reading with the outside buildings shut off, then it indicates that you have a leak in the underground system to the garden or outbuildings.

By following the above steps, you can pinpoint areas where leaks can occur and locate them with little difficulty.

Water Usage Table

<u>Type</u>	<u>Normal Use</u>	<u>Conservation Use</u>
Shower	water running - 25 gallons	wet down, soap up, rinse off - 4 gallons
Tub Bath	full- 36 gallons	minimal water level - 10 to 12 gallons
Washing hands	tap running - 2 gallons	fill basin - 1 gallon
Brushing teeth	tap running - 10 gallons	wet brush, rinse briefly - 1/2 gallon
Shaving	tap running - 20 gallons	fill basin 1 gallon
Toilet flushing	depending on tank size 5-7 gallons	using tank displacement bottom 4-6 gallons
Dishwashing	tap running - 30 gallons	wash & rinse in dishpan or sink - 5 gallons
Automatic Dishwasher	full cycle - 16 gallons	short cycle - 7 gallons
Washing machine	full cycle, top water level - 60 gallons	short cycle - minimal water level - 27 gallons
Outdoor watering	average hose - 10 gallons per minute	lowest priority - eliminate