TOWN OF WILLIAMSBURG DRINKING WATER QUALITY REPORT 2015



To our customers,

We are pleased to provide this report, covering information about the drinking water supplied by the Williamsburg Water Department in 2015. The report provides details about where your water comes from, how it is treated, the quality of the water you receive, and how Williamsburg water meets and exceeds all state and federal drinking water standards.

The Water Department understands that you may have concerns about lead in your drinking water. Williamsburg treats the water to make it less corrosive, to protect against lead leaching from pipes and plumbing fixtures. The lead concentrations in our system have been well below the Environmental Protection Agency's action level.

We encourage you to contact the Water Department with questions, comments or suggestions about any aspect of the Town of Williamsburg's drinking water.

Sincerely,

William Turner, Acting Chairman Williamsburg Water & Sewer Commission

TOWN OF WILLIAMSBURG PWS# 1340000 DISTRIBUTED: JUNE 2016

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 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 nonwater supply activities, ensuring that all residents upstream are aware of Best Management practices with respect to household hazardous materials and lawn chemicals, and 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 Unquomonk Brook and prevent pasture runoff. The complete SWAP Report is available at the Town Clerk's Office or online at 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 Chairman, at (413) 268-8405 or (413) 268-8430.

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 millionppb - parts per billion

Cross Connection Information

A "cross connection" is a connection between a drinking water pipe and a polluted source. The pollution can come from your own home. For instance, you're going to spray fertilizer on your lawn. You hook up your hose to the sprayer that contains the fertilizer. If the water pressure drops (say, because of fire hydrant use in the Town) when the hose is connected to the fertilizer, the fertilizer may be sucked back into the drinking water pipes through the hose. Over half of cross-connection incidents involve unprotected garden hoses. Here are some simple steps that you can take to prevent cross-connection hazards:

- Never submerge a hose in soapy water buckets, pet watering containers, pools, tubs, sinks, drains, or chemicals.
- ♦ Install a hose bib vacuum breaker on every threaded water fixture. This inexpensive device is available at most hardware stores and home-improvement centers, and the installation is as easy as attaching a garden hose to a spigot.
- Buy appliances and equipment that come with a built-in backflow preventer.





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. We were required to install and operate a disinfection system due to repeated exceedances of the MCL for total coliform bacteria. We chose the disinfection system and chose to reduce the level of chlorine in the system prior to this MCL exceedance. Due to contaminant violations of total coliform bacteria during the month of June 2015 and our system took the following corrective actions: We also failed to collect a sufficient number of repeat samples in July 2015 following the detection of total coliform in June 2015. We were required to collect five samples and only collected four samples. The repeat samples taken were within sampling guidelines.

- We collected additional samples.
- We announced public notification by newspaper, posting notices etc.

Our water system and Mass DEP 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.

Drinking Water Violations

Monitoring and Reporting Violations

We failed to complete required sampling in a timely manner, which is a monitoring and reporting violation. Because we did not take the required number of samples, we did not know whether the contaminants were present in your drinking water, and we are unable to tell you whether your health was at risk during that time. The contaminants for which monitoring was not done are listed in the table below, with the period during which samples should have been taken, the number of samples each contaminant required, the number taken, and when the required sampling was conducted.





| Contaminant | Monitoring Period | Number of Samples Required | Number of Samples Tested | Date Sampling Conducted | Health Effects |
|-----------------------------|------------------------|-------------------------------|-----------------------------|----------------------------|----------------|
| Total Coliforma Bacteria | 7/1/2015-7/31/2015 | 5 | 4 | 7/21/2015 | Unknown |
| Radionuclides | 7/1/2015- 9/30/2015 | 1 | 0 | 11/23/2015 | Unknown |

| | water Usage Table | | | | | | |
|-----------------|----------------------|--|---|--|--|--|--|
| <u>Туре</u> | | Normal Use | Conservation Use | | | | |
| | Shower | water running - 25 gallons | wet down, soap up, rinse off - 4 | | | | |
| 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 gal- lon | | | | |
| | 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 | lowest priority - eliminate | | | | |

Water Heade Table

Substances That Could Be in Water

Outdoor watering

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 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:

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

<u>Inorganic Contaminants</u>-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.

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

<u>Organic Chemical Contaminants</u>-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.

<u>Radioactive Contaminants</u>-which can be naturally occurring or be the result of oil and gas production and mining activities.

HOW TO DETECT A WATER LEAK

lowest priority - eliminate

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

- 1. Check all toilets for leaks by putting household blueing, found in the laundry section of the supermarket, or food coloring in the back of the toilet storage tank. This should be done the last thing in the night. If any color appears in the bowl in the morning, you have a leak. Check the rubber stop in the back of the storage tank for cracks and replace.
- 2. Check all faucets for drips or leaks
- 3. Check any hoses (washing machine, dishwasher, outdoor) for leaks
- 4. If you have any outbuildings connected to your water make sure you do not have a leak or a broken underground pipe.
- 5. Call a plumber

| 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) | 11/23/15 | 0.66 | 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, high- way 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 |

| | 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 two minutes before using water for cooking or drinking. 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



