2018 ANNUAL DRINKING WATER QUALITY REPORT

TOWN OF LAWRENCEVILLE
PWSID NO. 5025450

INTRODUCTION

This Annual Drinking Water Quality Report for calendar year 2018 is designed to inform you about your drinking water quality. Our goal is to provide you with a safe and dependable supply of drinking water, and we want you to understand the efforts we make to protect your water supply. The quality of your drinking water must meet state and federal requirements administered by the Virginia Department of Health (VDH).

If you have questions about this report, or if you want additional information about any aspect of your drinking water or want to know how to participate in decisions that may affect the quality of your drinking water, please contact:

C J Dean, at 434-848-2414, Town Manager

The times and location of regularly scheduled board meetings are as follows:

Second Tuesday of each month at 7:30 PM at the Town Office building.

GENERAL INFORMATION

The sources of drinking water (both tap water 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 minerals and, in some cases radioactive material, and can pick up substances resulting from 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 stormwater 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 agriculture, urban stormwater runoff, and residential uses.

-Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial process and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

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

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

All drinking water, including bottled drinking 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. More information can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorder, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

SOURCE OF YOUR DRINKING WATER

The source of your drinking water is surface water as described below.
The primary raw water intake is located on Great Creek with a secondary intake on the Meherrin River.

Treatment of the raw water consists of chemical addition, coagulation, flocculation, settling, filtration, fluoridation and chlorination. All of these processes work together to remove the physical, chemical, and biological contaminants to make the water safe for drinking.

A source water assessment of our system was conducted in March 2002 by the Virginia Department of Health. The Great Creek and Meherrin River were determined to be of High susceptibility to contamination using the criteria developed by the State in its approved Source Water Assessment Program.

The assessment report consists of maps showing the source water assessment area, an inventory of known land use activities of concern, and documentation of any known contamination within the last 5 years. The report is available by contacting your water system, The Town of Lawrenceville at the phone number or address given elsewhere in this drinking water quality report.

DEFINITIONS

Contaminants in your drinking water are routinely monitored according to Federal and State regulations. The table on the next page shows the results of our monitoring for calendar year 2018. In the table and elsewhere in this report you will find many terms and abbreviations you might not be familiar with. The following definitions are provided to help you better understand these terms:

Non-detects (ND) - lab analysis indicates that the contaminant is not present within the detection limits of the instrument used.

Parts per billion (ppb) or Micrograms per liter- one part per billion corresponds to one minute in 2000 years or a single penny in $10,000,000.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in $10,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Milirems per year (mrem/year) - milirems per year is a measure of radiation absorbed by the body.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the cloudiness of the water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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

Maximum Contaminant Level Goal, or 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.

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

Maximum Residual Disinfectant Level Goal or MRDLG-the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfectant Level or MRDL-the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Abbreviations: N/A- Not Applicable

MGD- Million Gallons per Day

QTR- Quarter

AVG- Average

WATER QUALITY RESULTS

Contaminant	MCLG	MCL	LEVEL FOUND	RANGE	VIOLATION	DATE OF SAMPLE	TYPICAL SOURCE OF CONTAMINATION
RTCR Total coliform and E. Coli			No samples Total Coliform Present	N/A	No	Routinely collect five samples per month	Human and animal feces
Turbidity (NTU) See Foot note (3)	N/A	TT,Max= 1 NTU	Max= 0.30	0.02-0.30	No	Continuous	Soil Runoff
Turbidity (NTU) See Foot note (3)	N/A	TT = 95% of monthly Samples <= 0.3NTU	% of monthly samples <0.3 NTU 100%	0.02-0.30	No	Continuous	Soil Runoff
Fluoride (ppm)	4	4	Average 0.66	0.50-0.83	No	Daily	Water additive which promotes strong teeth
Barium (mg/l)	2	2	0.032	N/A	No	12/12/18	Erosion of natural deposits
Nitrate-Nitrite (ppm)	10	10	0.27	N/A	No	12/12/18	Runoff from fertilizer use, Leaching from septic tanks, sewage; and erosion of natural deposits
Gross Alpha (pCi/L)	0	15	<0.34	N/A	No	12/7/16	Erosion of natural deposits
Gross Beta (pci/L) Footnote (2)	0	50	4.3	N/A	No	12/7/16	Decay of natural & manmade deposits
Combined Radium (pCi/L)	0	5	<0.5	N/A	No	12/7/16	Erosion of natural deposits
Copper (ppm) Footnote (A)	1.3	AL=1.3	90%=0.092 (none of 20 samples exceeded the action level)	<0.02-0.166	No	6/13/16—6/17/16	Corrosion of plumbing.
Lead(ppb) Footnote (1)	0	AL=15	90%=9.3 (none of 20 samples exceeded the action level)	<2-45.8	No	-6/13/16—6/17/16	Corrosion of plumbing

DISINFECTION BYPRODUCTS

Contaminant SITE 1-02	MCLG	MCL	Level Found	Range	Violation	Date of Sample	Typical Source of Contamination
HAA5s(Total Haloacetic Acids)(ppb) Footnote (B)	N/A	60 Running 4 qtr avg	Max 4-qtr avg 43	5-69	No	Quarterly 2018	By-product of drinking water disinfection
TTHMs(Total Trihalomethanes)(ppb) Footnote (C)	N/A	80 Running 4 qtr avg	Max 4-qtr avg 81	23-120	Yes	Quarterly 2018	By-product of drinking water disinfection
Contaminant SITE 2-03	**MCLG**	**MCL**	**Level Found**	**Range**	**Violation**	**Date of Sample**	**Typical Source of Contamination**
HAA5s(Total Haloacetic Acids)(ppb) Footnote (B)	N/A	60 Running 4 qtr avg	Max 4 qtr avg 45	21-68	No	Quarterly 2018	By-product of drinking water disinfection
TTHMs(Total Trihalomethanes)(ppb) Footnote (C)	N/A	80 Running 4 qtr avg	Max 4 qtr avg 75	22-140	No	Quarterly 2018	By-product of drinking water disinfection
TOC(Total Organic Carbon) Removal Ratio	N/A	TT-TOC removal ratio greater than or equal to 1.00	lowest ratio 1.36	1.29-1.79	No	Monthly	Naturally present in the environment
Chlorine (ppm)	4	4	1.38	0.30-2.30	No	Monthly at 5 Sites in System	Disinfection

Lead: Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

FOOTNOTES

(1): Lead- 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. Town of Lawrenceville Water Treatment Plant 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 15 to 30 seconds or until it becomes cold or reaches a steady temperature 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 at 1-800-426-4791 or at http://www.epa.gov/safewater/lead.

(A): Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a period of time could experience gastrointestinal distress. It is

possible that copper levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated copper levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

(B): Haloacetic acids-Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

(C): TTHMs-Some people who drink water containing trihalomethanes in excess of the MCL over many years could experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

(2): The MCL for beta particles is 4 mrem/year. EPA considers 50 pci/L to be the level of concern for beta particles.

(3): Turbidity is a measure of the cloudiness of the water and is used because it is a good indicator of how well the filtration system is functioning.

We regularly monitor for various contaminants in the water supply to meet regulatory requirements. The table lists only those contaminants that were present at levels of detection. Many other contaminants have been analyzed but were not present or were below the detection limits of the lab equipment.

Most of the results in the table are from testing done in 2018. However, the State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

MCL's are set at very stringent levels by the U. S. Environmental Protection Agency. In developing the standards EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year life span. EPA generally sets MCLs at levels that will result in no adverse health effects for some contaminants or a one-in-ten-thousand to one-in-a-million chance of having the described health effect for other contaminants.

VIOLATION INFORMATION

The Town of Lawrenceville Water system was in violation of the TTHM level at one sampling point. The four quarter running average for 2018 was 81 parts per billion and the limit is 80 parts per billion. The Town of Lawrenceville is committed to reduce the TTHM levels through improving treatment at the water plant and working with VDH and engineers for distribution system enhancements and improvements.

We are pleased to report to you that there were no detections of total coliforms or fecal coliforms in the monthly samples collected during calendar year 2018.

The Town of Lawrenceville Water Treatment Plant was awarded the Silver 2018 Water Plant Performance Award for Excellence in Filtration and Backwash. Also, the Town of Lawrenceville Water Treatment was awarded a 2018 Excellence in Waterworks Operations/Performance Award By VDH. The Town of Lawrenceville also provides water to Brunswick County, the Brunswick County IDA and the Town of Alberta.

This Drinking Water Quality Report was presented by:
C J Dean, Town Manager
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(434) 848-2414

The plant operators are required to be State certified by the Department of Professional and Occupation Regulations. The Virginia Department of Health classifies the Lawrenceville water plant as a Class 2 facility capable of producing three million gallons per day.

The operators at the Lawrenceville water treatment plant strive every day of the year to produce the highest quality water for your use. The experience and dedication of the following operators is what makes that possible:

Randy Spence, Chief Operator, Class One Licensure
David Seward, Operator, Class Two Licensure
David Brockwell, Operator, Class Two Licensure
Chuck Martin, Operator, Class Three Licensure
Robert Myrick, Operator, Class Four Licensure
Phil Pegram, Part-time Operator, Class One Licensure

The Town of Lawrenceville continues to strive for efficiencies while delivering the best quality of water in Southern Virginia. We will continue to enhance the distribution system through system upgrades and maintenance of the existing system. Part of this maintenance program is an annual flushing of fire hydrants. The flushing of fire hydrants will occur this summer and will be announced in the Brunswick Times Gazette. When the fire hydrant flushing occurs, please remember to check the color of your water prior to doing any laundry.

Water bills are sent out at the beginning of every month and are due on or before the 22nd of that month. The water meters are read with a lap top computer to ensure proper readings for each account. The radio read water meter replacement program reduced the labor required to read the water meters. The previous manual reading of the water meters would take three men about four days to complete the reading, or thirty-two hours of labor. The new system allows one person to read the water meters in five hours. The Town is saving twenty seven hours of labor every time that we read the water meters.