

TAZEWELL COUNTY
PUBLIC SERVICE AUTHORITY

Annual Drinking Water Quality Report 2015

Eastern Tazewell County Waterworks

This Annual Drinking Water Quality Report for calendar year 2015 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). **We at the Tazewell County Public Service Authority are pleased to report to you that your drinking water is safe and meets federal and state requirements.**

If you have questions about this report, please contact: **Todd Little at 276-945-9439 or Benny McGhee at 276-964-2960.**

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: **Dahmon Ball at 276-988-2243.**

The times and location of regularly scheduled board meetings are as follows: **The Tazewell County PSA Board of Directors meetings are scheduled for the first Monday of each month at 5:30pm. The meetings are held at the Tazewell County PSA office in Tazewell, VA.**

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: (1) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. (2) 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. (3) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses. (4) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems. (5) 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. 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 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).

The sources of your drinking water are surface water taken from the Clinch River, surface water taken from Lake Witten, and surface water taken from Cox's Branch Impoundment. Baptist Valley water is bulk purchased from the Town of Tazewell.

A source water assessment of our system was conducted in 2002 by the Virginia Department of Health. The Clinch River and Lake Witten were determined to be of high susceptibility and Cox's Branch Impoundment was determined to be of moderate 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 **Scott Kay at 276-988-9696.**

Is there any treatment of your drinking water supply? **Yes** If yes, describe it: Treatment of these sources consists of chemical addition, coagulation, flocculation, dissolved air floatation, filtration, fluoridation and chlorination.

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 the period of January 1st to December 31st, **2015**. 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:**

Maximum Contaminant Level, or 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, 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 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.

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

Non-detects (ND) - lab analysis indicates that the contaminant is not present

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.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

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

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

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity, or cloudiness, of water. Turbidity in excess of 5 NTU is just noticeable to the average person. Turbidity is monitored because it is a good indicator of the effectiveness of our filtration system.

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.

Certain contaminants (such as, arsenic, nitrate, and lead), if present in your drinking water, may be of special concern to consumers. Are any of those contaminants present at levels of concern that must be reported? **No**

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High Nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agriculture activity. If you are caring for an infant, you should ask for advice from your health care provider.

Did any MCL or TT violations occur during the year? **No**

Did any monitoring, reporting, or other violations occur during the year? **Yes, See attached.**

WATER QUALITY RESULTS

1. Regulated Contaminants

| Contaminant (units) | MCLG | MCL | Level Detected | Violation (Y/N) | Range | Date of Sample | Typical Source of Contamination |
|----------------------------|---------|------------------------------------|----------------|-----------------|------------|----------------|---|
| Turbidity (NTU) | - | TT, 1 NTU max | 0.27 | No | | | Soil runoff |
| | | TT, \leq 0.3 NTU 95% of the time | 100% | No | | | |
| Fluoride (mg/l) | 4 | 4 | 0.76 | No | | | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Gross Alpha (pCi/l) | 0 | 15 | 4.4 | No | N/A | 2008 | Erosion of natural deposits |
| Gross Beta (pCi/l) | 0 | 50 | 2.1 | No | N/A | 2008 | Decay of natural and man-made deposits |
| Radium (pCi/l) | 0 | 5 | 0.3 | No | N/A | 2008 | Erosion of natural deposits |
| Nitrate (ppm) | 10 | 10 | 0.34 | No | N/A | | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| Chlorine (ppm) | MRDLG=4 | MRDL = 4 | 1.05 | No | 1.0 – 1.1 | | Water additive used to control microbes |
| Haloacetic Acids (ppb) | N/A | 60 | 21 | No | 14 – 28 | | By-product of drinking water disinfection |
| Total Trihalomethane (ppb) | N/A | 80 | 31 | No | 15 – 50 | | By-product of drinking water disinfection |
| Total Organic Carbon | N/A | N/A | 1.48 | No | 1.0 – 2.91 | | Naturally present in the environment |
| Barium (ppm) | 2 | 2 | 0.034 | No | | | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. |

2. Lead and Copper Contaminants

| Contaminant (units) | MCLG | Action Level | 90 th Percentile | Date of Sampling | # of Sampling Sites Exceeding Action Level | Typical Source of Contamination |
|---------------------|------|--------------|-----------------------------|------------------|--|--|
| Copper (ppm) | 1.3 | AL=1.3 | 0.032 | 2013 | 0 | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| Lead (ppb) | 0 | AL=15 | ND | 2013 | 0 | Corrosion of household plumbing systems; Erosion of natural deposits |

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 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 Tazewell County Public Service Authority 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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Microbiological Contaminants - No samples taken for 2015 tested positive for Total Coliform or E.coli bacteria.

The water quality results in table 1 and 2 are from testing done in 2015. 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. Some of our data, though accurate, is more than one year old.

NOTICE TO CONSUMERS

of the

TCPSA/Eastern Tazewell County

Waterworks ID No. 1185755

We have been advised by State health officials of a failure to perform required monitoring in accordance with the Commonwealth of Virginia/State Board of Health *Waterworks Regulations*.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the monitoring period of August 8 to 14, 2015, we did not monitor for the Disinfection Byproducts haloacetic acids (HAA5) and total trihalomethanes (TTHM); therefore, we cannot be sure of the water quality of our drinking water during that time.

State health officials feel there is little need for concern about the safety of your water because past records of Disinfection Byproducts monitoring show that our system has no documented problems with haloacetic acids or total trihalomethanes; however, routine sampling and analysis are required to determine the quality of water delivered to our customers.

There is nothing you need to do at this time.

Since that time we have been collecting the required samples for analysis.

For more information, please contact:

Tazewell County Public Service Authority
276-945-9439

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.