



2014 ANNUAL WATER QUALITY REPORT

GALLATIN PUBLIC UTILITIES

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Water Quality Exceeds Mark:

Gallatin Public Utilities provides water service to approximately 15,500 customers through approximately 337 miles of water distribution mains. We are proud to announce that our water system meets or exceeds all water quality standards, as established by State and Federal regulatory agencies. This brochure is a summary of the high quality of water provided to our customers last year, and represents the dedication of our employees to provide our customers with water that is absolutely safe.

This brochure contains information about where your water comes from, what your water contains, how this water complies with Federal and State regulatory standards, and how customers may obtain more information.

Customer Comments Welcome:

If you are interested in learning more about the water department and water quality issues, you may call the Gallatin Public Utilities at 615-451-5922. The Gallatin Water Department operates as an entity of the City of Gallatin, and reports to the Mayor and City Council. The Gallatin City Council meets on the first and third Tuesday of each month at Gallatin City Hall. City Council Committee Meetings are held on the second and fourth Tuesday of each month at Gallatin City Hall. All meetings are open to the public.

Why Are There Contaminants in My Water?

Drinking water, including bottled water (FDA regulations establish limits for contaminants in bottled water), may reasonably expect to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Lakes, ponds, reservoirs, rivers, springs, streams and wells, provide sources of drinking water (both tap water and bottled water) and in Gallatin's case it is the Cumberland River - Old Hickory Lake. As water travels across the land or through the ground, it can dissolve naturally occurring minerals, in some cases, radioactive material, and can be polluted by animal and human activity. Contaminants that can be expected in *untreated* source water include:

- Biological Contaminants* - such as bacteria and viruses, which may come from septic systems, sewage treatment plants, livestock, and wildlife.
- Inorganic Contaminants* - such as metals, salts and turbidity, which may be naturally occurring or the result of urban stormwater run-off, industrial/domestic wastewater, farming, etc.
- Organic Chemicals* - such as synthetic and volatile organics which are the result of industrial activity, storm run-off, septic systems, etc.
- Pesticides and Herbicides* - which may come from a variety of sources including farming, storm run-off and residential uses.
- Radioactive Materials* - which may come from the water passing through natural deposits.

In order to insure that tap water is safe to drink, the EPA and the Tennessee Department of Environment and Conservation prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Water's Trip To Your Tap

Gallatin's water goes through several steps, to ensure its quality, on its trip to your tap. First the water is pumped from an intake on the Cumberland River - Old Hickory Lake to the Water Treatment Plant. Once the water reaches the treatment plant it is pre-chlorinated, PAC (polyaluminum chloride) is added to aid in settling, and powdered activated carbon is added to aid in taste and odor control, then the water proceeds through areas called flocculation basins and begins the sedimentation process (where larger particles are formed and allowed to sink to the bottom), the water then flows into the plants filtration system and becomes crystal clear. At this point the water receives post chlorination (to prevent bacteria from developing), aquadene (for corrosion control), and flouride (to help in preventing tooth decay). The treated water flows into a clear well and is then pumped into the water distribution system.

Important Health Information:

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as person with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons, and infants can be particularly at risk for infections. These people should seek advice from their health care providers about drinking water. Environmental Protection Agency and Centers for Disease Control guidelines on appropriate means to lesson the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

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 in components associated with service lines and home plumbing. Gallatin Public Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials 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 thirty seconds to two 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>.

Where Does Your Water Come From?

Gallatin's drinking water, which is surface water, is pumped through an intake on the Cumberland River - Old Hickory Lake. Our goal is to protect our water from contaminants and we are working with the State to determine the vulnerability of our water source to *potential* contamination. The Tennessee Department of Environment and Conservation (TDEC) has prepared a Source Water Assessment Program (SWAP) Report for the untreated water sources serving our water system. The SWAP Report assessed the susceptibility of the untreated water sources to *potential* contamination. To ensure safe drinking water, all public water systems treat and routinely test their water. Water sources have been rated as reasonably susceptible, moderately susceptible, or slightly susceptible based on geographic factors and human activities in the vicinity of the water source. The Gallatin Water Department sources rated as reasonably susceptible to *potential* contamination.

A explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings, and the overall TDEC report to the USEPA can be viewed online at http://www.tn.gov/environment/water/water-supply_source-assessment.shtm or you may contact Gallatin Public Utilities to obtain copies of specific assessments.

WATER QUALITY REPORT

Listed below are 15 contaminants detected in Gallatin's drinking water in 2014. All are below allowed levels. Not listed are the hundreds of other contaminants for which we tested, but were not detected. The Treatment Technique requirements for Total Organic Carbon were met in 2014.

Most of the data presented in this table is from testing done between **January 1, 2014 and December 31, 2014**. We monitor for some contaminants less than once per year, for these contaminants, the last sample date is shown in the table.

Contaminant	Highest Level Allowed (MCL)	Ideal Goals (MCLG)	Highest Level Detected	Range of Detections	Units	Date	Violation	Sources of Contamination
MICROBIOLOGICAL CONTAMINANTS:								
Total Coliform	<5% Positive Samples	0	0.30% Positive	1 1	MPN MPN	Jul 16 2014 Aug 04 2014	No	Naturally present in the environment
INORGANIC CONTAMINANTS:								
Barium	2	2	0.03		ppm	May-11	No	Erosion of natural deposits
Copper	AL=1300	1300	180(AVG)	BDL - 510	ppb	Jun-14	No	Corrosion of household plumbing
Fluoride	4	4	0.66(AVG)	0.58 - 0.71	ppm	Quartley	No	Water additive for strong teeth
Lead	AL=15	0	1(AVG)	BDL - 100	ppb	Jun-14	No	Corrosion of household plumbing
Nitrate	10	10	0.45		ppm	Feb-14	No	Runoff from fertilizer use
Turbidity	TT (100% <0.3 NTU)	TT	0.26	0.02 - 0.26	NTU	Daily	No	Soil runoff
Chlorine	MRDL=4	MRDLG=4	1.52(AVG)	0.4 - 2.3	ppm	Daily	No	Water additive for disinfection
UNREGULATED CONTAMINANTS:								
Sodium			3.5		ppm	May-14	No	Erosion of natural deposits
VOLATILE ORGANIC CONTAMINANTS:								
TTHM	80	0	32 LRAA @ Site 2	13 - 45 *	ppb		No	By-product of drinking water chlorination
HAA5	60	0	27 LRAA @ Site 2	8 - 37 *	ppb		No	
TOC	TT	TT	42%(AVG) 25%(REQ)	40% - 45%	% Removal		No	Naturally occurring in environment
RADIOACTIVE CONTAMINANTS:								
Gross Alpha	15	0	1.3		pCi/L	Nov 05 2014	No	Erosion of natural deposits
Radium 226	3	0	0.76		pCi/L	Nov 05 2014	No	Erosion of natural deposits
Radium 228	2.5	0	0.46		pCi/L	Nov 05 2014	No	Decay of natural and Man-made deposits

DEFINITIONS:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water.
Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health.
Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water.
Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health.
ppm - one part per million, explained in terms of money as one penny in \$10,000.00.
ppb - one part per billion, explained in terms of money as one penny in \$10,000,000.00.
BDL - Below Detection Limit
MPN - most probable number.
pCi/L - Picocuries per Liter is the measure of radioactivity in water.

Turbidity: Turbidity does not pose any risk to your health. We monitor turbidity, which is the measure of the cloudiness of water, because it is a good indicator that our filtration system is functioning properly.
Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water. Treatment technique requirements were met for Total Organic Carbon in 2011.
Action Level: The concentration of a contaminant that trigger treatment or other requirement that a water system must follow. Action Levels are reported at the 90th percentile for homes at greatest risk. Out of 30 samples collected we had zero (0) exceed the lead or copper Action Level.

NTU: Nephelometric Turbidity Unit, used to measure cloudiness in drinking water.
TTHM: Total Trihalomethanes **HAA5:** Halo Acetic Acids **TOC:** Total Organic Carbon
* For TTHM/HAA5 the range of detections reflects the standard monitoring samples for the Stage 2 DBP IDSE requirements.

Think Before You Flush

Flushing unused or expired medicines can be harmful to your drinking water. Properly disposing of unused or expired medication helps protect you and the environment. Keep medications of Tennessee's waterways by disposing in one of our permanent pharmaceutical take back bins. There are nearly 100 take back bins across the state, to find a convenient location please visit: www.tn.gov/environment/sustainable-practices_unwanted-prescriptions.shtml.