# Chalet Village North Water System

PWS ID: **TN0000849**

Tennessee Water Service

## Annual Water Quality Report 2023

### Message from Tiffany Van Horn, President

Dear Tennessee Water Service Customers,

I am pleased to present your Annual Water Quality Report for 2023. Transparency, health, and safety are key priorities in our company's efforts to provide a high-quality, reliable water supply. Included in this report are details about where your water comes from, what it contains, and how it compares to regulatory standards.

**We are proud to share this report which is based on water quality testing through December 2023. We continually strive to supply water that meets and/or exceeds all federal and state water quality regulations at your tap.**

Treating and maintaining a safe and reliable water supply is not only hard work, but it is rewarding. Our team of local water experts are proudly dedicated to providing safe, reliable, and cost-effective service every day. This commitment includes acting with integrity, protecting the environment, and enhancing the local community.

Best regards,

Tiffany Van Horn

**Visit us online at**
**www.tennesseewaterservice.com**
**Or Join us on**
**Facebook @TennesseeWaterService &**
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***We ask that all our customers help us protect our water sources which are the heart of our community, our way of life and our children's future.***

### Source of Drinking Water

Your water comes from groundwater wells located in Sevier County which draw water from a fractured bedrock aquifer. An aquifer is a geological formation that contains water. A portion of your water is purchased from the City of Gatlinburg Water System which draws surface water from the West Prong of the Little Pigeon River and also purchases water from the City of Pigeon Forge.

### Source Water Assessment/Wellhead Protection

The Tennessee Department of Conservation (TDEC) has prepared a Source Water Assessment Program (SWAP) Report for the water supplies serving water to this system. Chalet Village North was rated as low in susceptibility to potential contamination. The City of Gatlinburg was rated as moderately susceptible to potential contamination. The Source Water Assessment Report can be viewed online at https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/source-water-assessment.html or call TDEC at 1-888-891-TDEC to obtain a copy. In addition, Chalet Village North has developed a Wellhead Protection Plan, outlining how we protect our groundwater sources. If interested, please contact our Customer Service Department at (800) 531-2321.

### Help Protect our Resources

Help put a stop to the more than **1 trillion gallons of water lost annually** nationwide due to household leaks. These easy to fix leaks waste the average family the amount of water used to fill a backyard swimming pool each year. Plumbing leaks can run up your family's water bill an extra 10 percent or more, but chasing down these water and money wasting culprits is as easy as 1—2—3. Simply check, twist, and replace your way to fewer leaks and more water savings:

⇒ **Check** for silent leaks in the toilet with a few drops of food coloring in the tank, and check your sprinkler system for winter damage.

⇒ **Twist** faucet valves; tighten pipe connections; and secure your hose to the spigot. For additional savings, twist a WaterSense labeled aerator onto each bathroom faucet to save water without noticing a difference in flow. They can save a household more than 500 gallons each year—equivalent to the amount water used to shower 180 times!

⇒ **Replace** old plumbing fixtures and irrigation controllers that are wasting water with WaterSense labeled models that are independently certified to use 20 percent less water and perform well.

For more information visit www.epa.gov/watersense.

***Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.***

## EPA Wants You To Know

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:***

A. ***Microbial contaminants,*** *such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.*
B. ***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.*
C. ***Pesticides and herbicides,*** *which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.*
D. ***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 stormwater runoff, and septic systems.*
E. ***Radioactive contaminants,*** *which can be naturally occurring or be the result of oil and gas production and mining activities.*

## What measures are in place to ensure water is safe to drink?

In order to ensure that tap water is safe to drink, the EPA prescribes regulations, which 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, which must provide the same protection for public health.

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 the water poses a health risk. 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.

## Special notice from EPA for the elderly, infants, cancer patients and people with HIV/AIDS or other immune system problems

**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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).**

## Information Concerning Lead in Water

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. Tennessee Water Service 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.

Water that remains stationary within your home plumbing for extended periods of time can leach lead out of pipes joined with lead-containing solder as well as brass fixtures or galvanized pipes. Flushing fixtures has been found to be an effective means of reducing lead levels. The flushing process could take from 30 seconds to 2 minutes or longer until it becomes cold or reaches a steady temperature. Faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. Consumers should be aware of this when choosing fixtures and take appropriate precautions. Visit the NSF Web site at www.nsf.org to learn more about lead-containing plumbing fixtures.

## Drain Disposal Information

Sewer overflows and backups can cause health hazards, damage home interiors, and threaten the environment. A common cause is sewer pipes blocked by grease, which gets into the sewer from household drains. Grease sticks to the insides of pipes. Over time, the grease can build up and block the entire pipe. Help solve the grease problem by keeping this material out of the sewer system in the first place:

- Never pour grease down sink drains or into toilets. Scrape grease into a can or trash.
- Put strainers in sink drains to catch food scraps / solids for disposal.

## Prescription Medication and Hazardous Waste

Household products such as paints, cleaners, oils, and pesticides, are considered to be household hazardous waste. Prescription and over-the-counter drugs poured down the sink or flushed down the toilet can pass through the wastewater treatment system and enter rivers and lakes (or leach into the ground and seep into groundwater in a septic system). Follow the directions for proper disposal procedures. **Do not flush hazardous waste or prescription and over-the-counter drugs down the toilet or drain.** They may flow downstream to serve as sources for community drinking water supplies. Many communities offer a variety of options for conveniently and safely managing these items. For more information, visit the EPA website at: www.epa.gov/hw/household-hazardous-waste-hhw.

**The Safe Drinking Water Act** was passed in 1974 due to congressional concerns about organic chemical contaminants in drinking water and the inefficient manner by which states supervised and monitored drinking water supplies. Congress' aim was to assure that all citizens served by public water systems would be provided high quality water. As a result, the EPA set enforceable standards for health-related drinking water contaminants. The Act also established programs to protect underground sources of drinking water from contamination.

| **Understanding This Report** In order to help you understand this report, we want you to understand a few terms and abbreviations that are contained in it. | |
|---|---|
| Action level (AL) | The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow. |
| Action level goal (ALG) | Action level goal is the level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety. |
| EPA | Environmental Protection Agency. |
| Locational Running Annual Average (LRAA) | The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters using the best available treatment technology. |
| Maximum Contaminant Level (MCL) | The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology. |
| Maximum Contaminant Level Goal (MCLG) | The "goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety. |
| Maximum Residual Disinfectant Level (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 (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. |
| Not applicable (N/A) | Not applicable. |
| Not Detected (ND) | Analysis or test results indicate the constituent is not detectable at minimum reporting limit. |
| 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 (ug/l) | 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) | A measure of radioactivity in the water. |
| Running Annual Average (RAA) | Calculated running annual average of all contaminant levels detected. |
| Nephelometric Turbidity Units (NTU) | A measure of the clarity of water. Turbidity does not pose any risk to your health. Turbidity is monitored as an indication that our filtration system is functioning properly. |
| Treatment Technique (TT) | A treatment technique is a required process intended to reduce the level of a contaminant in drinking water. |
| Turbidity | A measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system. |

## Monitoring Your Water

We routinely monitor for contaminants in your drinking water according to Federal and State laws. The tables below lists all the drinking water contaminants that were detected in the last round of sampling for each particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in the table is from testing done January 1 through December 31, 2023.** The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, maybe more than one year old.

## If You Have Questions Or Want To Get Involved

Tennessee Water Service does not have regularly scheduled public meetings. Please contact our Customer Service Department at (800) 531-2321 should you have any questions.

## Violations

In 2023, Tennessee Water Service received a violation for failing to perform sodium monitoring during the required time period of January 1, 2023 to December 31, 2023. Results were at normal levels from the samples that were collected in 2021 and 2022 from this well. Monitoring for all other contaminants was performed, and we did not exceed any allowable levels for these contaminants. A copy of this report was provided to the regulatory authority during the recent sanitary survey and the final report reflects the system has returned to compliance. No additional action is required.

## Water Quality Test Results - Tennessee Water Service, Inc.

| Contaminant (units) | Year Sampled | AL Exceedance Y/N | Your Water | # of sites found above the AL | MCLG | MCL | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| **Lead and Copper Contaminants** | | | | | | | |
| Copper (ppm) (90th percentile) | 2023 | N | 0.205 | 0 | 1.3 | AL= 1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives. |
| Lead (ppb) (90th percentile) | 2023 | N | 0.001 | 0 | 0 | AL = 15 | Corrosion of household plumbing systems; erosion of natural deposits. |

| Contaminant (units) | Year Sampled | MCL Violation Y/N | Your Water | Range Low High | MCLG | MCL | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| **Nitrate/Nitrite Contaminants** | | | | | | | |
| Nitrate, as Nitrogen (ppm) | 2023 | N | 0.741 | 0.343 - 1.14 | 10 | 10 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| **Inorganic Contaminants** | | | | | | | |
| Arsenic (ppb) | 2021 | N | 1.44 | ND - 1.44 | 0 | 10 | Erosion of natural deposits; runoff from orchards; runoff from glass and electronic production wastes |
| **Stage 2 Disinfection Byproduct Compliance** | | | | | | | |
| TTHM (ppb) [Total Trihalomethanes] | 2023 | N | 22.3 | N/A | N/A | 80 | Byproduct of drinking water disinfection |
| HAA5 (ppb) [Total Haloacetic Acids] | 2023 | N | 15.7 | N/A | N/A | 60 | Byproduct of drinking water disinfection |

**Disinfectant Residuals Summary**

| Contaminant (units) | Year Sampled | MRDL Violation Y/N | Your Water (highest RAA) | Range Low High | MRDLG | MRDL | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Chlorine (ppm) | 2023 | N | 1.08 | 0.9- 1.3 | 4 | 4.0 | Water additive used to control microbes |

### Unregulated Contaminants

*Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. For additional information call the Safe Drinking Water Hotline at (800) 426-4791.*

**Unregulated Inorganic Contaminants**

| Contaminant (units) | Sample Date | Level Detected (highest) | Range Low High | Secondary MCL |
|---|---|---|---|---|
| Sodium (ppm) | 2021, 2022 | 10.6 | 10.3 - 10.6 | No Limit |

Please see the ***Violations*** section on Page 3 of this report for a violation we received for sodium monitoring.

**Unregulated VOC Contaminants**

| Contaminant (units) | Sample Date | Level Detected (highest) | Range Low High | Likely Source of Contamination |
|---|---|---|---|---|
| Chloroform (ppb) | 2023 | 20.4 | 20.4 - 20.4 | Byproduct of drinking water disinfection |

### PFAS Testing

Tennessee Water Service continues efforts to conduct statewide drinking water testing for Per- and Polyfluoroalkyl Substances (PFAS). These man-made compounds are used in the manufacturing of products resistant to water, grease or stains including firefighting foams, cleaners, cosmetics, paints, adhesives and insecticides. PFAS can migrate into the soil, water, and air and is likely present in the blood of humans and animals all over the world. During 2023, the Environmental Protection Agency (EPA) had Health Advisory Levels (HALs) for GenX, PFBS, PFOA, and PFOS. On April 10, 2024, the EPA approved new drinking water standards for six PFAS including PFOA, PFOS, PFNA, PFHxS, PFBS, and GenX Chemicals. We are reviewing the components of the new rule and will take appropriate actions to meet new regulations.

Our focus will remain, as always, on supplying our customers with quality, reliable water service.

For the latest PFAS results, visit our website at www.tennesseewaterservice.com and click Water Quality Reports under Water Safety. For more information visit https//www.epa.gov/pfas.

## 2023 Water Quality Test Results - City of Gatlinburg Water System

*Please see the following sample results for water quality tests conducted by the **City of Gatlinburg Water System (PWS ID# 0000256).** If you have any questions about this information, please contact Mr. Dale Phelps, Utilities Manager, at (865) 436-4681.*

| Contaminant | MCLG in CCR units | MCL in CCR units | Level Found in CCR units | Number of Samples Exceeding AL | Range of Detections Low High | Violations | Year Sampled | Typical Source of Contaminant |
|---|---|---|---|---|---|---|---|---|
| **Microbiological Contaminants** | | | | | | | | |
| *Turbidity | N/A | TT | 0.30 NTU | 0 | 0.03 - 0.30 | None | 2023 | Soil runoff |
| **Total Organic Carbon (TOC) | N/A | TT | 0.875 | 0 | ND - 0.629 | None | 2023 | Precursor for control of disinfection by-products |
| ***Turbidity - To comply with the TT, 95% of turbidity samples must be less than 0.3 NTU. Gatlinburg's filter plant met this standard in 99.9% of samples collected during the year.<br>** Total Organic Carbon (TOC) - During the calendar year, Gatlinburg was required to achieve a 35% reduction in TOC. The treatment technique for TOC was met.* | | | | | | | | |
| **Inorganic Contaminants** | | | | | | | | |
| Nitrate (as Nitrogen) (ppm) | 10 | 10 | 0.125 | 0 | N/A | None | 2023 | Runoff from fertilizer use; leaching from septic tanks; sewage; erosion from natural deposits |
| Sodium (ppm) | N/A | N/A | 5.67 | 0 | N/A | None | 2023 | Naturally present in the environment |
| **Stage 2 Disinfection Byproduct Compliance** | | | | | | | | |
| TTHM (ppb) [Total Trihalomethanes] | NA | 80 | 28.4 | 0 | 11.9– 52.0 | None | 2023 | Byproduct of drinking water disinfection |
| HAA5 (ppb) [Total Haloacetic Acids] | NA | 60 | 32.1 | 0 | 11.8– 47.2 | None | 2023 | Byproduct of drinking water disinfection |