

# ANNUAL WATER QUALITY REPORT

Reporting Year 2024



*Presented By*  
**Town of Weaverville**



## Our Commitment

We are pleased to present to you this year's annual water quality report. This report is a snapshot of last year's water quality covering all testing performed between January 1 and December 31, 2024. Included are details about your source of water, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and providing you with this information because informed customers are our best allies.

## Where Does My Water Come From?

Our source water is the Ivy River, which has two forks that combine at the Highway 19/23 (new I-26) bridge. One fork originates in Madison County and the other in Buncombe County. Both forks have many feeder streams, and the watershed drainage area above our intake covers 112 square miles. The Town of Weaverville maintains connections with the Town of Mars Hill water system for emergency supply. In 2024 the Town of Weaverville purchased water from the Town of Mars Hill, and its annual report can be viewed at [townofmarshill.org/ccr](http://townofmarshill.org/ccr). We are committed to ensuring the highest-quality drinking water and providing a safe and dependable supply.

## What's a Cross-Connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air-conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (back-siphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed industrial, commercial, and institutional facilities in the service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test backflow preventers to make sure that they provide maximum protection. For more information on backflow prevention, contact the Safe Drinking Water Hotline at (800) 426-4791.

## Public Meetings

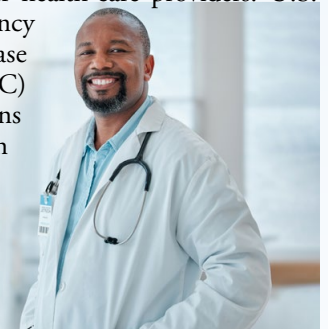
Information regarding town council meetings and other Town of Weaverville events should be directed to Town Hall administration at (828) 645-7116. An electronic version of this Consumer Confidence Report (CCR) and other information can be found at [weaverville.org](http://weaverville.org).

## 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 out of our waterways by disposing responsibly. To find a convenient drop-off location near you, please visit [bit.ly/3LeRyXy](http://bit.ly/3LeRyXy).

## Important Health Information

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 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. U.S. Environmental Protection Agency (U.S. EPA)/Centers for Disease Control and Prevention (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 (800) 426-4791 or [epa.gov/safewater](http://epa.gov/safewater).



## QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Randall Wilson, Lawrence T. Sprinkle Jr. Water Treatment Facility Superintendent, at (828) 658-2417. Questions regarding billing should be directed to Town Hall administration at (828) 645-7116. Questions about water connections, leaks, and distribution should be directed to the Town of Weaverville Public Works Department at (828) 645-0606.

## Substances That Could Be in Water

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 occur naturally in the soil or groundwater or may 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 by-products of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff, and septic systems.

**Radioactive Contaminants**, which can occur naturally or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, U.S. EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. 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 mean that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Safe Drinking Water Hotline (800) 426-4791 or visiting [epa.gov/safewater](http://epa.gov/safewater).

## What Causes the Pink Stain on Bathroom Fixtures?

The reddish-pink color frequently noted in bathrooms on shower stalls, tubs, tile, toilets, sinks, and toothbrush holders and on pets' water bowls is caused by the growth of the bacterium *Serratia marcescens*. *Serratia* is commonly isolated from soil, water, plants, insects, and vertebrates (including humans). The bacteria can be introduced into the house through any of these sources. The bathroom provides a perfect environment (moist and warm) for bacteria to thrive.

The best solution to this problem is to clean and dry these surfaces to keep them free from bacteria. Chlorine-based compounds work best, but keep in mind that abrasive cleaners may scratch fixtures, making them more susceptible to bacterial growth. Chlorine bleach can be used periodically to disinfect the toilet and help eliminate the occurrence of the pink residue. Keeping bathtubs and sinks wiped down using a solution that contains chlorine will also help to minimize its occurrence. *Serratia* will not survive in chlorinated drinking water.

## Testing for Cryptosporidium

**Cryptosporidium** is a microbial parasite found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Monitoring of source water indicates the presence of these organisms. Current test methods cannot determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

Sampling of our water source from February 2019 through January 2021 (end of test session) showed the following:

**Cryptosporidium:** Low range, 0 oocyst/liter; high range, 0.1 oocyst/liter

It is important to note that these results are from our raw water source only and not our treated drinking water supply. For more information, contact the Safe Drinking Water Hotline at (800) 426-4791.

## Water Treatment Process

Our source (raw) water comes from a flowing river. Flowing river conditions can change dramatically during the treatment process. Certified treatment operators monitor, adjust chemical applications, and routinely test numerous sampling points throughout the treatment process. Water treatment plants and processes vary in design, depending on the source water supply to be treated. Our process consists of a unique up-flow clarification chamber prior to the conventionally designed treatment process.

First, raw water is pumped from our source. This water is tested to determine treatment application requirements. Coagulant chemical treatment is applied to the raw water prior to the up-flow process to create a snow in the water called floc, which settles naturally to produce a filtering effect. Effluent from the up-flow process is evaluated, and any additional treatment application requirement is determined.

This treated water enters settling basins, where natural settling of the remaining floc particles results in cleaner prefiltered water. The settled water is then filtered through engineered filtration beds to provide a quality water that is ready for final treatment, which includes mandated chlorine, corrosion inhibitor, and pH adjustments. The Lawrence T. Sprinkle Jr. Water Treatment Facility does not add fluoride in its treatment process.

## Source Water Assessment

The North Carolina Department of Environment and Natural Resources (DENR), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source (well or surface water intake) to potential contaminant sources (PCS). The results of the assessment are available in SWAP Assessment Reports that include maps, background information, and a relative susceptibility rating of higher, moderate, or lower.

The relative susceptibility rating of each source was determined by combining the contaminant rating (number and location of PCS within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area). It is important to understand that a higher susceptibility rating does not imply poor water quality, only the system's potential to become contaminated by PCS in the assessment area. The assessment findings are summarized in the following table:

| SYSTEM NAME         | CITY        | PWS ID    | SOURCE NAME (S)       | SUSCEPTIBILITY RATING (S) | SWAP REPORT DATE |
|---------------------|-------------|-----------|-----------------------|---------------------------|------------------|
| Town of Weaverville | Weaverville | 01-11-025 | Ivy River             | Higher                    | September 2020   |
| Town of Mars Hill   | Mars Hill   | 01-58-010 | Carter Cove Reservoir | Moderate                  | September 2020   |

The complete SWAP Assessment Report for Weaverville may be viewed at [https://www.ncwater.org/SWAP\\_Reports/NC0111025\\_SWAP\\_Report-20200909.pdf](https://www.ncwater.org/SWAP_Reports/NC0111025_SWAP_Report-20200909.pdf). The Mars Hill report can be viewed at [https://www.ncwater.org/SWAP\\_Reports/NC0158010\\_SWAP\\_Report-20200909.pdf](https://www.ncwater.org/SWAP_Reports/NC0158010_SWAP_Report-20200909.pdf). Note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this website may differ from the results that were available at the time this CCR was prepared. If you are unable to access your SWAP Report online, you may mail a written request for a printed copy to Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh, NC 27699-1634 or email [swap@ncdenr.gov](mailto:swap@ncdenr.gov). Please indicate your system name and number and provide your name, mailing address, and phone number. If you have any questions about the SWAP Report, please contact the Source Water Assessment staff at (919) 707-9098.

## Lead in Home Plumbing

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 Weaverville is responsible for providing high-quality drinking water and removing lead pipes but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, or doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute-accredited certifier to reduce lead in drinking water. If you are concerned about lead and wish to have your water tested, contact the Weaverville Water Distribution Superintendent at (828) 645-0606. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at [epa.gov/safewater/lead](http://epa.gov/safewater/lead).

To address lead in drinking water, public water systems were required to develop and maintain an inventory of service line materials by October 16, 2024. Developing an inventory and identifying the location of lead service lines (LSL) is the first step for beginning LSL replacement and protecting public health. The lead service inventory may be viewed by contacting the Weaverville Water Distribution Superintendent at (828) 645-0606. Please contact us if you would like more information about the inventory or any lead sampling that has been done.

## Water Conservation Tips

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use three to six gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.



## Test Results

We routinely monitor for over 150 contaminants in your drinking water according to federal and state laws. The following tables list all the drinking water contaminants that we 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 this table is from testing done January 1 through December 31, 2024. We are pleased to report that your drinking water meets or exceeds all federal and state requirements.

The U.S. EPA and the state allow 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, is more than one year old.

### REGULATED SUBSTANCES

| SUBSTANCE (UNIT OF MEASURE)                                    | YEAR SAMPLED | MCL [MRDL]                         | MCLG [MRDLG] | AMOUNT DETECTED | RANGE LOW-HIGH | VIOLATION | TYPICAL SOURCE                            |
|--|--------------|------------------------------------|--------------|-----------------|----------------|-----------|---|
| Chlorine (ppm)   | 2024         | [4]                                | [4]          | 1.40            | 0.45–2.20      | No        | Water additive used to control microbes   |
| Fecal Indicators [enterococci or coliphage] (positive samples) | 2024         | TT                                 | NA           | 0               | NA             | No        | Human and animal fecal waste              |
| Haloacetic Acids [HAAs] (ppb)                                  | 2024         | 60                                 | NA           | 24              | 12–30          | No        | By-product of drinking water disinfection |
| Total Coliform Bacteria (positive samples)                     | 2024         | TT                                 | NA           | 0               | NA             | No        | Naturally present in the environment      |
| Total Organic Carbon [TOC] <sup>1</sup> (removal ratio)        | 2024         | TT                                 | NA           | 2.69            | 0.89–2.86      | No        | Naturally present in the environment      |
| TTHMs [total trihalomethanes] (ppb)                            | 2024         | 80                                 | NA           | 48              | 13–71          | No        | By-product of drinking water disinfection |
| Turbidity <sup>2</sup> (NTU)                                   | 2024         | TT = 1 NTU                         | NA           | 0.07            | NA             | No        | Soil runoff                               |
| Turbidity (lowest monthly percent of samples meeting limit)    | 2024         | TT = 95% of samples meet the limit | NA           | 100             | NA             | No        | Soil runoff                               |

Tap water samples were collected for lead and copper analyses from sample sites throughout the community<sup>3</sup>

| SUBSTANCE (UNIT OF MEASURE) | YEAR SAMPLED | AL  | MCLG | AMOUNT DETECTED (90TH %ILE) | RANGE LOW-HIGH | SITES ABOVE AL/TOTAL SITES | VIOLATION | TYPICAL SOURCE   |
|-----------------------------|--------------|-----|------|-----------------------------|----------------|----------------------------|-----------|--|
| Copper (ppm)                | 2023         | 1.3 | 1.3  | ND                          | <0.050–0.054   | 0/20                       | No        | Corrosion of household plumbing systems; erosion of natural deposits |
| Lead (ppb)                  | 2023         | 15  | 0    | ND                          | NA             | 0/20                       | No        | Corrosion of household plumbing systems; erosion of natural deposits |

### SECONDARY SUBSTANCES

| SUBSTANCE (UNIT OF MEASURE) | YEAR SAMPLED | SMCL    | MCLG | AMOUNT DETECTED | RANGE LOW-HIGH | VIOLATION | TYPICAL SOURCE      |
|-----------------------------|--------------|---------|------|-----------------|----------------|-----------|---------------------|
| pH (units)                  | 2024         | 6.5–8.5 | NA   | 7.3             | 7.3–7.8        | No        | Naturally occurring |

### UNREGULATED SUBSTANCES<sup>4</sup>

| SUBSTANCE (UNIT OF MEASURE) | YEAR SAMPLED | AMOUNT DETECTED | RANGE LOW-HIGH | TYPICAL SOURCE      |
|-----------------------------|--------------|-----------------|----------------|---------------------|
| Sodium (ppm)                | 05/14/2024   | 7.12            | 7.12–7.12      | Naturally occurring |

<sup>1</sup> The value reported under Amount Detected for TOC is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of the TOC removal requirements.

<sup>2</sup> Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU.

<sup>3</sup> The tap water table summarizes our most recent lead and copper tap sampling data. If you would like to review the complete lead tap sampling data, please contact the Weaverville water treatment plant superintendent at [rwilson@weavervillenc.org](mailto:rwilson@weavervillenc.org) or (828) 658-2417.

<sup>4</sup> Unregulated contaminants are those for which U.S. EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist U.S. EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.

## Definitions

**90th %ile:** The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

**AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**MCL (Maximum Contaminant Level):** 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.

**MCLG (Maximum Contaminant Level Goal):** 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.

**MRDL (Maximum Residual Disinfectant Level):** 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.

**MRDLG (Maximum Residual Disinfectant Level Goal):** 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.

**NA:** Not applicable.

**ND (Not Detected):** Indicates that the substance was not found by laboratory analysis.

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**ppb ( $\mu\text{g/L}$ ) (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (mg/L) (parts per million):** One part substance per million parts water (or milligrams per liter).

**Removal Ratio:** A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

**SMCL (Secondary Maximum Contaminant Level):** These standards are developed to protect aesthetic qualities of drinking water and are not health based.

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

