

WATER QUALITY REPORT 2025



Smyth County Waterworks

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The Annual Drinking Water Quality Report for calendar year 2022 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 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:

Smyth County Water & Sewer Department, 121 Bagley Circle, Suite 113, Marion, VA 24354, 276-783-3298.

The Board of Supervisors meet every Second Thursday of each month at 5:00 p.m. at 121 Bagley Circle, Marion, VA 24354.

YOUR WATER SOURCES

Your water comes from one or more of the following sources:

- **Marion Town Springs** - are located along State Route 16 and Currin Valley Road. The spring water is treated with chlorine for disinfection

and fluoride for preventing tooth decay.

- **The Marion Water Treatment Plant** -- obtains water from the Middle Fork of the Holston River. The river water treatment includes coagulation, flocculation, sedimentation, filtration, chlorine disinfection and fluoridation.
- **Hutton Branch** – The Hutton Branch membrane filtration plant obtains water from the Hutton Branch Well No. 1 located near the end of State Route 704. The Hutton Branch Well No 2 is located near the end of State Route 704.
- **Cardwell Town Well and Well No.10** – Owned and operated by the Town of Saltville. Treatment includes chlorine disinfection and fluoridation.
- **Taylor Spring and the South Fork of the Holston River** – located adjacent to the Thomas Bridge Water Corporation water treatment plant at 586 Thomas Bridge Road, Marion, VA.
- **Chilhowie/Washington County Service Authority Water Treatment Plant** – Mill Creek Spring, Cole Spring and Widener Spring (ground water under the direct influence of surface water) treated by filtration to remove particulate matter, chlorination for disinfection, and fluoridation for the promotion of dental health.
- **Town of Saltville** - The Town of Saltville gets its water from two different groundwater sources. These include the Cardwell Town Well, which is in the Poor Valley area and the No. 10 Well, which is in the Broady Bottom area. The Cardwell Town Well is approximately 450 feet deep and draws groundwater from the Tonoloway Limestone aquifer. The No. 10 Well is approximately 1,050 feet deep and draws groundwater from the Honaker Formation aquifer. Treatment of raw water from these sources consists of chlorination and fluoridation to make the water safe to drink.
- **Watsons Gap Well** - is located on the north side of Route 633 in the Watsons Gap community and is treated with chlorine for disinfection.

SOURCE WATER ASSESSMENT

Source Water Assessment of The Town Springs, Middle Fork of the Holston River, South Fork of the

Holston River, Taylor Springs and Hutton Branch water systems was conducted in 2019 by the Virginia Department of Health. A Source Water Assessment of Chilhowie-Washington County Service Authority Membrane Filtration Plant, Mill Creek Spring, Cole Spring and Widener Spring was conducted in 2020 by the Virginia Department of Health. A Source Water Assessment of the Watsons Gap well was conducted during 2021 by the Virginia Department of Health. A Source Water Assessment of the Saltville system was conducted in 2020 by the Virginia Department of Health.

The **Town Springs and Middle Fork of the Holston River** sources were determined to be highly susceptible to contamination using the criteria developed by the state in its approved Source Water Assessment Program. The Report is available by contacting Bill Rush, Marion Town Manager, at P. O. Box 1005 Marion VA 24354.

The **Hutton Branch** well source was determined to be highly susceptible to contamination using the criteria developed by the state in its approved Source Water Assessment Program. The report is available by contacting the Smyth County Water Department at the phone number or address given elsewhere in this drinking water quality report.

Cardwell Town Well and Well No. 10 were determined to be highly susceptible to contamination using the criteria developed by the state in its approved Source Water Assessment Program. The report is available by contacting the Smyth County Water Department at the phone number or address given elsewhere in this drinking water quality report or Town of Saltville.

The **South Fork of the Holston River and the Taylor Spring** were determined to be highly susceptible to contamination using the criteria developed by the state in its approved Source Water Assessment Program. The Report is available by contacting Thomas Bridge Water Corporation, 586 Thomas Bridge Road, Marion VA 24354.

Chilhowie–Washington County Service Authority Membrane Filtration Plant were determined to be highly susceptible to contamination using the criteria developed by the state in its approved Source Water Assessment

Program. Each report is available by contacting the Town of Chilhowie or Washington County Service Authority.

The **Mill Creek Spring, Cole Spring and Widener Spring** were determined to be highly susceptible to contamination using the criteria developed by the state in its approved Source Water Assessment Program. Additional information concerning this report may be obtained by calling the Town of Chilhowie or the Washington County Service Authority.

The **Watsons Gap** well was determined to be highly susceptible to contamination using the criteria developed by the state in its approved Source Water Assessment Program. The report is available by contacting Smyth County Water & Sewer Dept. at the phone number or address given elsewhere in this drinking water quality report.

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 five years.

CONTAMINANTS IN DRINKING 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, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic Contaminants**, such as salts and metals, can be naturally occurring or result from urban storm-water 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 agricultural and urban storm-water runoff, and residential uses.
- **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 storm-water runoff, and septic systems.

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

EPA REGULATIONS

In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limits the amounts 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.

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 water poses a health risk. More information can be obtained from the EPA's Safe Drinking Water Hotline (800- 426-4791) or the EPA's website (www.epa.gov/your-drinking-water).

IMPORTANT HEALTH INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer who are 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 EPA's Safe Drinking Water Hotline (800-426-4791).

LEAD IN DRINKING WATER

If present, elevated levels of lead can cause serious health problems, especially for expectant mothers and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. SCW is responsible for

providing high quality drinking water but cannot control the variety of materials used in consumers' 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 EPA's Safe Drinking Water Hotline (800-426-4791). 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 in your water and wish to have your water tested, contact the Smyth County Water Department. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

ADDITIONAL HEALTH INFORMATION

In 2019, the Town of Marion began monitoring for Cryptosporidium in the source water (before treatment) as required by EPA's Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR). Cryptosporidium is a microscopic parasite found in surface water throughout the United States. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Under the LT2ESWTR, the average Cryptosporidium concentration determines if additional treatment measures are needed. Twenty-four samples are required for analysis over a two-year period. During 2021, the average Cryptosporidium concentration was 0 oocysts per liter for the 3 samples collected. While monitoring indicates the presence of these organisms in our source water (before treatment), the current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Based on the Cryptosporidium monitoring results so far and the current performance of the treatment plant, we anticipate meeting the future treatment requirements of the LT2ESWTR.

YOUR WATER QUALITY

Contaminants in your drinking water are routinely monitored according to Federal and State regulations. The tables on pages 4 - 8 show the results of our monitoring for the period of January 1st to December 31st, 2021, unless otherwise

noted. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. We tested for many more constituents than are included in the tables. We only report on detected constituents. Some of our data presented in the below tables, though accurate, is more than one year old. 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

Our water systems did not have any PMCL, TT, monitoring, reporting, or other violations during 20221. During the January 1, 2022, through March 31, 2022, monitoring period we failed to collect the proper number of samples for Haloacetic Acids and Total Trihalomethanes examination. One set of samples was required, and none was submitted for analysis. We have resumed collecting and submitting for analysis the proper number of samples. The health effects as a result of not sampling are unknown.

DEFINITIONS

The following definitions will help you better understand the terms used in this report.

- **Action Level (AL)** — the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Level 1 Assessment** — a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our watersystem.
- **Level 2 Assessment** — a very detailed study of the waterworks to identify potential problems and determine (if possible) why an *E. coli* PMCL violation has occurred and /or why total coliform bacteria have been found in our water system on multiple occasions.
- **Maximum Contaminant Level (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. MCLs are set at very stringent levels by the US EPA. 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.

- **Maximum Contaminant Level Goal (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 (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 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.
- **Nephelometric Turbidity Unit (NTU)** — a measure of the clarity, or cloudiness, of water. Turbidity in excess of 5 NTU is scarcely noticeable to the average person. Turbidity is monitored because it is a good indicator of the effectiveness of our filtration system.
- **Non-detects (ND)** — not detectable at testing limits.
- **Parts per billion (ppb) or Micrograms per Liter (µg/L)** — one part per billion, corresponds to one minute in 2,000 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 2 years or a single penny in \$10,000.
- **Picocuries per Liter (pCi/L)** — a measure of

radioactivity in water.

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

ADDITIONAL INFORMATION

Service Line Inventory

The Smyth County Public Service Authority has completed the required Lead Service Line Inventory and submitted the results to the Virginia Department of Drinking Water. Based on customer self-identification, historical records and field investigation, we have determined that the following systems are comprised of Non-Lead Service Lines: Atkins, East Hungry Mother, Poor Valley, South Fork, St. Clair's Creek, St Johns Crossing, and Walker Creek. We have determined that the Watson's Gap system is comprised of Non-Lead Service Lines, 1 Lead Service Line, 0 Galvanized Lines Requiring Replacement, and 1 Unknown Materials in the system. These will be included in our replacement plan. We thank you for your help and cooperation. The full inventory is available at the Town Office.

Health Effects Information

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems.

CCR Data Tables – Smyth County Consecutive Systems

Atkins, East Hungry Mother, Poor Valley, South Fork,
St. Clair’s Creek, St. Johns Crossing, Walker Creek, Watson’s Gap

| Regulated Contaminant | | | Atkins Extension Town of Marion | | | | East Hungry Mother Town of Marion | | | | |
|--|-----------|-------------------------------|------------------------------------|--------------------|--|-----------------------------|--------------------------------------|--|--|----------------|---|
| Contaminant (units) | MCLG | MCL | Level Detected | Violation (Yes/No) | Range | Date of Sample | Level Detected | Violation (Yes/No) | Range | Date of Sample | Typical Source of Substance |
| Nitrate (ppm) | 10 | 10 | 0.73 | No | 0.12-1.34 | 2025 | 0.73 | No | 0.12 -1.34 | 2025 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | .67 | No | ND – 0.67 | 2025 | .67 | No | ND – 0.67 | 2025 | Water additive which promotes strong teeth |
| Barium (ppm) | 2 | 2 | 0.028 | No | 0.0219-0.036 | 2025 | 0.028 | No | 0.0219-0.036 | 2025 | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Alpha Emitters (pCi/l) | 0 | 15 | <0.38 | No | ND | 2021 | <0.38 | No | ND | 2021 | Erosion of Natural Deposits |
| Combined Radium (pCi/l) | 0 | 5 | 0.4 | No | 0.4-0.4 | 2021 | 0.4 | No | 0.4-0.4 | 2021 | Erosion of Natural Deposits |
| Chlorine (ppm) | MRDLG = 4 | MRDL = 4 | 1.39 | No | 1.2-1.5 | 2025 | 1.48 | No | 1.4-1.5 | 2025 | Water additive used to control microbes |
| Total Organic Carbon | NA | TT, met when ≥ 1 | 0.59 | No | ND – 1.2 | 2025 | 0.59 | No | ND – 1.2 | 2025 | Naturally present in the environment |
| Halooacetic Acids (ppb) | NA | 60 | 22 | No | N/A | 2025 | ND | No | N/A | 2025 | By-product of drinking water disinfection |
| TTHMs (Total Trihalomethanes) (ppb) | NA | 80 | 39.80 | No | N/A | 2025 | 3.220 | No | N/A | 2025 | By-product of drinking water disinfection |
| Turbidity (NTU) | NA | TT, 1 NTU Max | 0.05 | No | 0.01 – 0.07 | 2025 | 0.05 | No | 0.01 – 0.07 | 2025 | Soil Runoff |
| | | TT, ≤ 0.3 NTU 95% of the time | 100% | No | NA | | 100% | No | NA | | |
| Contaminant (units) | MCLG | Action Level | 90 th Percentile | Date of Sampling | # of Sampling Sites Exceeding Action Level | 90 th Percentile | Date of Sampling | # of Sampling Sites Exceeding Action Level | Typical Source of Substance | | |
| Lead (ppb) | 0 | AL=15 | 0.0007 | 2023 | 0 | <5.0 | 2024 | 0 | Corrosion of household plumbing systems; Erosion of natural deposits | | |
| Copper (ppm) | 1.3 | AL=1.3 | 0.016 | 2023 | 0 | 0.116 | 2024 | 0 | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives | | |
| Monitoring Results for Sodium (Unregulated-No Limits Designated) | | | | | | | | | | | |
| Substance | | | Level Detected | | Range | Date Sampled | Level Detected | | Range | Date Sampled | Naturally Occurring; Addition of treatment chemicals/processes |
| Sodium* | | | 16.0 (mg/L) | | N/A | 2025 | 16.0 (mg/L) | | N/A | 2025 | |

CCR Data Tables – Smyth County Consecutive Systems

Atkins, East Hungry Mother, Poor Valley, South Fork,
St. Clair's Creek, St. Johns Crossing, Walker Creek, Watson's Gap

| | | | Hutton Branch | | | | POOR VALLEY Cardwell Town Well & Well No. 10 | | | | |
|--|-----------|--------------|----------------------|--------------------|--|-----------------|--|--|--|----------------|---|
| Contaminant (units) | MCLG | MCL | Level Detected | Violation (Yes/No) | Range | Date of Sample | Level Detected | Violation (Yes/No) | Range | Date of Sample | Typical Source of Substance |
| Nitrate (ppm) | 10 | 10 | ND | No | - | 2025 | 1.41 | No | 0.282 – 1.41 | 2025 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | 0.320 | No | - | 2024 | 0.82 | No | 0.73 – 0.82 | 2025 | Water additive which promotes strong teeth |
| Barium (ppm) | 2 | 2 | 0.091 | No | - | 2024 | 0.126 | No | 0.084 – 0.126 | 2025 | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Alpha Emitters (pCi/l) | 0 | 15 | 3.85 | No | 2.9 – 4.8 | 2024 | 2.6 | No | ND – 2.6 | 2023 | Erosion of Natural Deposits |
| Combined Radium (pCi/l) | 0 | 5 | 2.60 | No | 2.0 - 3.2 | 2024 | 0.7 | No | 0.5 – 0.7 | 2023 | Erosion of Natural Deposits |
| Chlorine (ppm) | MRDLG = 4 | MRDL = 4 | 1.49 | No | 1.4 – 1.5 | 2025 | 1.48 | No | 1.3-1.5 | 2025 | Water additive used to control microbes |
| Haloacetic Acids (ppb) | NA | 60 | ND | No | ND | 2025 | 1.3 | No | - | 2025 | By-product of drinking water disinfection |
| TTHMs [Total Trihalomethanes] (ppb) | NA | 80 | ND | No | ND | 2025 | 5.84 | No | - | 2025 | By-product of drinking water disinfection |
| Contaminant (units) | MCLG | Action Level | 99th Percentile | Date of Sampling | # of Sampling Sites Exceeding Action Level | 99th Percentile | Date of Sampling | # of Sampling Sites Exceeding Action Level | Typical Source of Substance | | |
| Lead (ppb) | 0 | AL=15 | 1.5 | 2023 | 0 | 0.00424 | 2024 | 0 | Corrosion of household plumbing systems; Erosion of natural deposits | | |
| Copper (ppm) | 1.3 | AL=1.3 | 0.086 | 2023 | 0 | 0.054 | 2024 | 0 | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives | | |
| Monitoring Results for Sodium (Unregulated-No Limits Designated) | | | | | | | | | | | |
| Substance | | | Level Detected | Range | Date Sampled | Level Detected | Range | Date Sampled | Typical Source of Substance | | |
| Sodium * | | | 1.82 mg/L | - | 2024 | 7.20 (mg/L) | 4.56 – 7.20 mg/L | 2025 | Naturally Occurring; Addition of treatment chemicals/ processes | | |

CCR Data Tables – Smyth County Consecutive Systems

Atkins, East Hungry Mother, Poor Valley, South Fork,
St. Clair's Creek, St. Johns Crossing, Walker Creek, Watson's Gap

| | | | SOUTH FORK Taylor Spring & South Fork of Holston River | | | | ST CLAIRS CREEK Chilhowie/Washington County Service Authority | | | | |
|--|-----------|-------------------------------|---|--------------------|--|-----------------------------|--|--|--|----------------|---|
| Contaminant (units) | MCLG | MCL | Level Detected | Violation (Yes/No) | Range | Date of Sample | Level Detected | Violation (Yes/No) | Range | Date of Sample | Typical Source of Substance |
| Nitrate (ppm) | 10 | 10 | 0.42 | No | N/A | 2025 | 0.455 | No | N/A | 2025 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | ND | No | NA | 2025 | 0.46 | No | NA | 2025 | Water additive which promotes strong teeth |
| Barium (ppm) | 2 | 2 | 0.022 | No | N/A | 2025 | 0.036 | No | N/A | 2025 | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Alpha Emitters (pCi/l) | 0 | 15 | ND | No | NA | 2020 | ND | No | NA | 2020 | Erosion of Natural Deposits |
| Combined Radium (pCi/l) | 0 | 5 | 0.2 | No | — | 2020 | 0.5 | No | 0.1-.05 | 2020 | Erosion of Natural Deposits |
| Chlorine (ppm) | MRDLG = 4 | MRDL = 4 | 1.11 | No | 1.0-1.2 | 2025 | 1.32 | No | 1.3- 1.4 | 2025 | Water additive used to control microbes |
| Total Organic Carbon | NA | TT, met when ≥ 1 | 1.00 | No | 0.36-0.63 | 2025 | 1.10 | No | 1.00 – 1.39 | 2025 | Naturally present in the environment |
| Haloacetic Acids (ppb) | NA | 60 | 26.7 | No | N/A | 2025 | 1.4 | No | N/A | 2025 | By-product of drinking water disinfection |
| TTHMs (Total Trihalomethanes) (ppb) | NA | 80 | 60.95 | No | N/A | 2025 | 5.1 | No | N/A | 2025 | By-product of drinking water disinfection |
| Turbidity (NTU) | NA | TT, 1 NTU Max | 0.06 | No | 0.03-0.07 | 2025 | 0.69 | No | 0.01 – 0.69 | 2025 | Soil Runoff |
| | | TT, ≤ 0.3 NTU 95% of the time | 100% | No | NA | | 100% | No | NA | | |
| Contaminant (units) | MCLG | Action Level | 90 th Percentile | Date of Sampling | # of Sampling Sites Exceeding Action Level | 90 th Percentile | Date of Sampling | # of Sampling Sites Exceeding Action Level | Typical Source of Substance | | |
| Lead (ppb) | 0 | AL=15 | 0.00227 | 8/28/2024 | 0 | 8.4 | 2024 | 0 | Corrosion of household plumbing systems; Erosion of natural deposits | | |
| Copper (ppm) | 1.3 | AL=1.3 | 0.074 | 8/28/2024 | 0 | 4.29 | 2024 | 0 | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives | | |
| Monitoring Results for Sodium (Unregulated-No Limits Designated) | | | | | | | | | | | |
| Substance | | | Level Detected | | Range | Date Sampled | Level Detected | | Range | Date Sampled | Naturally Occurring; Addition of treatment chemicals/ processes |
| Sodium * | | | 4.05 (mg/L) | | - | 2025 | 13.2 mg/L | | 1.43 – 13.2 | 2025 | |

CCR Data Tables – Smyth County Consecutive Systems

Atkins, East Hungry Mother, Poor Valley, South Fork,
St. Clair’s Creek, St. Johns Crossing, Walker Creek, Watson’s Gap

| | | | ST JOHNS CROSSING Chilhowie/Washington County Service Authority | | | | WALKER CREEK Town of Marion | | | | |
|--|-----------|-------------------------------|--|--------------------|--|-----------------------------|---------------------------------------|--|--|----------------|---|
| Contaminant (units) | MCLG | MCL | Level Detected | Violation (Yes/No) | Range | Date of Sample | Level Detected | Violation (Yes/No) | Range | Date of Sample | Typical Source of Substance |
| Nitrate (ppm) | 10 | 10 | 0.455 | No | ND – 0.455 | 2025 | 0.73 | No | 0.12 – 1.34 | 2025 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | 0.46 | No | ND – 0.46 | 2025 | 0.67 | No | ND – 0.67 | 2025 | Water additive which promotes strong teeth |
| Barium (ppm) | 2 | 2 | 0.036 | No | 0.028 – 0.036 | 2025 | 0.028 | No | 0.0219-0.036 | 2025 | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Alpha Emitters (pCi/l) | 0 | 15 | ND | No | NA | 2020 | <0.38 | No | ND | 2021 | Erosion of Natural Deposits |
| Combined Radium (pCi/l) | 0 | 5 | 0.5 | No | 0.1-0.5 | 2020 | 0.4 | No | 0.4 – 0.4 | 2021 | Erosion of Natural Deposits |
| Chlorine (ppm) | MRDLG = 4 | MRDL = 4 | 1.32 | No | 1.3– 1.4 | 2025 | 1.37 | No | 1.3-1.5 | 2025 | Water additive used to control microbes |
| Total Organic Carbon | NA | TT, met when ≥ 1 | 1.100 | No | 1.00 – 1.39 | 2025 | 0.59 | No | ND – 1.2 | 2025 | Naturally present in the environment |
| Haloacetic Acids (ppb) | NA | 60 | 2.5 | No | N/A | 2025 | 8 | No | 0-22 | 2025 | By-product of drinking water disinfection |
| TTHMs (Total Trihalomethanes) (ppb) | NA | 80 | 4.28 | No | N/A | 2025 | 14 | No | 0-39 | 2025 | By-product of drinking water disinfection |
| Turbidity (NTU) | NA | TT, 1 NTU Max | 0.69 | No | 0.01 – 0.69 | 2025 | 0.05 | No | 0.01 – 0.07 | 2025 | Soil Runoff |
| | | TT, ≤ 0.3 NTU 95% of the time | 100% | No | NA | | 100% | No | NA | | |
| Contaminant (units) | MCLG | Action Level | 99 th Percentile | Date of Sampling | # of Sampling Sites Exceeding Action Level | 90 th Percentile | Date of Sampling | # of Sampling Sites Exceeding Action Level | Typical Source of Substance | | |
| Lead (ppb) | 0 | AL=15 | 8.4 | 2024 | 0 | ND | 2025 | ND | Corrosion of household plumbing systems; Erosion of natural deposits | | |
| Copper (ppm) | 1.3 | AL=1.3 | 4.29 | 2024 | 0 | 0.239 | 2025 | 0.015 – 0.284 | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives | | |
| Monitoring Results for Sodium (Unregulated-No Limits Designated) | | | | | | | | | | | |
| Substance | | | Level Detected | Range | Date Sampled | Level Detected | Range | Date Sampled | Typical Source of Substance | | |
| Sodium * | | | 13.2 mg/L | 1.43 – 13.2 | 2025 | 16.0 (mg/L) | N/A | 2025 | Naturally Occurring; Addition of treatment chemicals/ processes | | |

CCR Data Tables – Smyth County Consecutive Systems

Atkins, East Hungry Mother, Poor Valley, South Fork,
St. Clair’s Creek, St. Johns Crossing, Walker Creek, Watson’s Gap

| | | | WATSONS GAP The Watsons Gap Well | | | | |
|-------------------------------------|-----------|--------------|--|--------------------|--|----------------|--|
| Contaminant (units) | MCLG | MCL | Level Detected | Violation (Yes/No) | Range | Date of Sample | Typical Source of Substance |
| Nitrate (ppm) | 10 | 10 | 0.107 | No | N/A | 2025 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | ND | No | NA | 2024 | Water additive which promotes strong teeth |
| Barium (ppm) | 2 | 2 | 0.04 | No | – | 2024 | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Alpha Emitters (pCi/l) | 0 | 15 | ND | No | NA | 2020 | Erosion of Natural Deposits |
| Combined Radium (pCi/l) | 0 | 5 | 0.2 | No | — | 2020 | Erosion of Natural Deposits |
| Chlorine (ppm) | MRDLG = 4 | MRDL = 4 | 1.39 | No | 1.3 – 1.4 | 2025 | Water additive used to control microbes |
| Haloacetic Acids (ppb) | NA | 60 | 1.4 | No | 1.1 -1.4 | 2025 | By-product of drinking water disinfection |
| TTHMs (Total Trihalomethanes) (ppb) | NA | 80 | 3.40 | No | 2.96 – 3.40 | 2025 | By-product of drinking water disinfection |
| Contaminant (units) | MCLG | Action Level | 90 th Percentile | Date of Sampling | # of Sampling Sites Exceeding Action Level | | Typical Source of Substance |
| Lead (ppb) | 0 | AL=15 | ND | 2024 | 0 | | Corrosion of household plumbing systems; Erosion of natural deposits |
| Copper (ppm) | 1.3 | AL=1.3 | 0.113 | 2024 | 0 | | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| Substance | | | Level Detected | | Range | Date Sampled | Naturally Occurring; Addition of treatment chemicals/ processes |
| Sodium * | | | 1.00 mg/L | | - | 8/21/2024 | |

Violations:

Watson’s Gap - **During the monitoring periods of April – June 2025, we failed to collect the proper number of samples for Source Water Bacteriological Analysis by Most Probable Number (MPN) method. One sample was required during the second calendar quarter, and none were submitted for analysis. We have resumed collecting and submitting for analysis the proper number of samples. The health effects as a result of not sampling are unknown. **

Hutton Branch - **During the monitoring periods of April – June 2025, we failed to collect the proper number of samples for Source Water Bacteriological Analysis by Most Probable Number (MPN) method. One sample was required during the second calendar quarter, and none were submitted for analysis. We have resumed collecting and submitting for analysis the proper number of samples. The health effects as a result of not sampling are unknown. **

CCR Data Tables – Smyth County Consecutive Systems

Atkins, East Hungry Mother, Poor Valley, South Fork,
St. Clair's Creek, St. Johns Crossing, Walker Creek, Watson's Gap

This is the new wording for these Sections of the CCR. Please add these Paragraphs listed below to the Lead Service Line Inventory.

ADDITIONAL HEALTH INFORMATION

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. Smyth County PSA 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 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 (800-426-4791). 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 in your water and wish to have your water tested, contact the Smyth County PSA. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

ADDITIONAL INFORMATION ABOUT YOUR WATERWORKS

Service Line Inventory

The Smyth County Public Service Authority has completed the required Lead Service Line Inventory and submitted the results to the Virginia Department of Health Office of Drinking Water. Based on customer self-identification, historical records and field investigation, we have determined that the following systems are comprised of Non-Lead Service Lines: Atkins, East Hungry Mother, Poor Valley, South Fork, St. Clair's Creek, St. Johns Crossing, and Walker Creek.

We have determined that the Watson's Gap system is comprised of Non-Lead Service Lines, 1 Lead Service Line, 0 Galvanized Lines Requiring Replacement, and 1 Unknown Materials in the system. These will be included in our replacement plan. We thank you for your help and cooperation. The full inventory is available at the Town Office.

Health Effects Information

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems.