

# ***2023 Annual Drinking Water Quality Report***

## ***Grassy Pond Water Corporation***

Water System Number: NC 20-23-003

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is a snapshot of last year's water quality. Included are details about your source(s) 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 to providing you with this information because informed customers are our best allies. **If you have any questions about this report or concerning your water, please contact Mr. Phillip Sarratt at the Grassy Pond Water Company's office at (864) 489-7777. We want our valued customers to be informed about their water utility. The Grassy Pond Water Company Board members meet monthly at the Grassy Pond Water Company's Office located at 636 Chesnee Highway, Gaffney, SC 29341. Please contact the Grassy Pond Water Corporation's Office at (864) 489-777 to obtain meeting times.**

### **What EPA Wants You to Know:**

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 about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (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 and components associated with service lines and home plumbing. Grassy Pond Water Corporation 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>.

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 be naturally-occurring or 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; and radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

### **When You Turn on Your Tap, Consider the Source:**

The water provided by the Grassy Pond Water Company is purchased from multiple sources. Approximately 25% of Grassy Pond Water Company's water comes from the Gaffney Board of Public Works which uses surface water from both the Broad River and Cherokee Creek. This water is treated at the Gaffney Water Treatment Plant. Approximately 75 % of our water is purchased from the Broad River Water Authority, who also uses surface water from the Broad River and then treats it at the Rutherford County Water Treatment Facility located in Rutherford County, North Carolina. The Broad River originates above Lake Lure, NC in the Hickory Nut Gorge area, flowing southeast through Rutherford County, North Carolina.

## Source Water Assessment Program (SWAP) Results

The North Carolina Department of Environmental Quality (DEQ), 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 (PCSs). 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 for the Grassy Pond Water Corporation was determined by combining the contaminant rating (number and location of PCSs 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). The assessment findings are summarized in the table below:

| Susceptibility of Sources to Potential Contaminant Sources (PCSs) |                       |                   |
|---|-----------------------|-------------------|
| Source Name   | Susceptibility Rating | SWAP Report Date  |
| Broad River Water Authority                                       | Moderate              | September 9, 2020 |

The complete SWAP Assessment reports for both the Grassy Pond Water Corporation and Broad River Water Authority may be viewed on the Web at: <https://www.ncwater.org/?page=600> 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 on the web, 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 requests to [swap@deq.nc.gov](mailto:swap@deq.nc.gov). Please indicate your system name, 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 by phone at (919) 707-9098.

It is important to understand that a susceptibility rating of “higher” does not imply poor water quality, only the system’s potential to become contaminated by PCSs in the assessment area.

### Help Protect Your Source Water:

Protection of drinking water is everyone’s responsibility! You can do your part to help protect your community’s drinking water source(s) in several ways: dispose of all chemicals and medications properly, take used motor oil to a recycling center, pick up after your pets, eliminate or strictly limit the use of harsh lawn and garden fertilizers, herbicides, and pesticides, participate in recycling efforts, and volunteer in your community to participate in group efforts to protect your source, etc.

### Violations that Your Water System Received for the Report Year:

We are pleased to report that during 2023, or any compliance period ending in 2023, Grassy Pond Water Company received no violations.

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### Important Drinking Water Definitions:

**Not-Applicable (N/A)** – Information not applicable/not required for that particular water system or for that particular rule.

**Non-Detects (ND)** - Laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used.

**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.

**Nephelometric Turbidity Unit (NTU)** - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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

**Maximum Residual Disinfection 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 Disinfection 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.

**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 under the Stage 2 Disinfectants and Disinfection Byproducts Rule.

**Running Annual Average (RAA)** – The average of sample analytical results for samples taken during the previous four calendar quarters.

**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.

**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.

### Water Quality Data Tables of Detected Contaminants:

We routinely monitor for over 150 contaminants in your drinking water according to Federal and State laws. The tables below 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, 2023.** The 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.

#### Microbiological Contaminants in the Distribution System – Broad River Water Authority: 2023

| Contaminant (units)                           | MCL Violation Y/N | Number of Positive/Present Samples | MCLG | MCL   | Likely Source of Contamination       |
|---|-------------------|------------------------------------|------|---|--------------------------------------|
| Total Coliform Bacteria (presence or absence) | N                 | 0                                  | 0    | TT*   | Naturally present in the environment |
| <i>E. coli</i> (presence or absence)          | N                 | 0                                  | 0    | Routine and repeat samples are total coliform-positive and either is <i>E. coli</i> -positive or system fails to take repeat samples following <i>E. coli</i> -positive routine sample or system fails to analyze total coliform-positive repeat sample for <i>E. coli</i><br><br>Note: If either an original routine sample and/or its repeat samples(s) are <i>E. coli</i> positive, a Tier 1 violation exists. | Human and animal fecal waste         |

\* If a system collecting fewer than 40 samples per month has two or more positive samples in one month, an assessment is required.

\* If a system collecting 40 or more samples per month finds greater than 5% of monthly samples are positive in one month, an assessment is required.

#### Turbidity\*: Broad River Water Authority: 2023

| Contaminant (units)   | Treatment Technique (TT) Violation Y/N | Your Water             | MCLG | Treatment Technique (TT) Violation if:                        | Likely Source of Contamination |
|---|--|------------------------|------|---|--------------------------------|
| Turbidity (NTU) - Highest single turbidity measurement                            | N                                      | Avg. 0.03<br>Max. 0.08 | N/A  | Turbidity > 1 NTU   | Soil runoff                    |
| Turbidity (%) - Lowest monthly percentage (%) of samples meeting turbidity limits | N                                      | 100 %                  | N/A  | Less than 95% of monthly turbidity measurements are ≤ 0.3 NTU |                                |

\* 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.

#### Turbidity\*: Gaffney Board of Public Works: 2023

| Contaminant (units)                                    | Treatment Technique (TT) Violation Y/N | Your Water | MCLG | Treatment Technique (TT) Violation if:                        | Likely Source of Contamination |
|--|--|------------|------|---|--------------------------------|
| Turbidity (NTU) - Highest single turbidity measurement | N                                      | 0.162 NTU  | N/A  | Turbidity > 1 NTU   | Soil runoff                    |
| Turbidity (NTU) - Lowest single turbidity measurement  | N                                      | 0.021 NTU  | N/A  | Less than 95% of monthly turbidity measurements are ≤ 0.3 NTU |                                |

\* 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.

**Inorganic Contaminants: Broad River Water Authority**

| Contaminant (units) | Sample Date   | MCL Violation<br>Y/N | Your Water | Range |      | MCLG | MCL | Likely Source of Contamination  |
|---------------------|---------------|----------------------|------------|-------|------|------|-----|---|
|                     |               |                      |            | Low   | High |      |     |   |
| Fluoride (ppm)      | February 2023 | N                    | 0.71       | 0.51  | 0.95 | 4    | 4   | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |

Note: The Fluoride level is controlled at approximately 0.70 ppm with the annual average being 0.69 ppm.

**Nitrate/Nitrite Contaminants: Gaffney Board of Public Works**

| Contaminant (units)         | Sample Date | MCL Violation<br>Y/N | Your Water | Range |      | MCLG | MCL | Likely Source of Contamination  |
|-----------------------------|-------------|----------------------|------------|-------|------|------|-----|---|
|                             |             |                      |            | Low   | High |      |     |   |
| Nitrate (as Nitrogen) (ppm) | 2023        | No                   | 0.40       | 0.40  | 0.40 | 10   | 10  | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |

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

**Lead and Copper Contaminants: Broad River Water Authority**

| Contaminant (units)                        | Sample Date | Your Water (90 <sup>th</sup> Percentile) | Number of sites found above the AL | MCLG | AL     | Likely Source of Contamination                                       |
|--|-------------|--|------------------------------------|------|--------|--|
| Copper (ppm) (90 <sup>th</sup> percentile) | 2023        | 0.12                                     | 0                                  | 1.3  | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits |
| Lead (ppb) (90 <sup>th</sup> percentile)   | 2023        | ND                                       | 0                                  | 0    | AL=15  | Corrosion of household plumbing systems; erosion of natural deposits |

**Lead and Copper Contaminants: Grassy Pond South Carolina Sites**

| Contaminant (units)                        | Sample Date | Your Water (90 <sup>th</sup> Percentile) | Number of sites found above the AL | MCLG | AL     | Likely Source of Contamination                                       |
|--|-------------|--|------------------------------------|------|--------|--|
| Copper (ppm) (90 <sup>th</sup> percentile) | 2023        | 0.091                                    | 0                                  | 1.3  | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits |
| Lead (ppb) (90 <sup>th</sup> percentile)   | 2023        | ND                                       | 0                                  | 0    | AL=15  | Corrosion of household plumbing systems; erosion of natural deposits |

**Lead and Copper Contaminants: Grassy Pond North Carolina (next sampling due in 2024)**

| Contaminant (units)                        | Sample Date    | Your Water (90 <sup>th</sup> Percentile) | Number of sites found above the AL | MCLG | AL     | Likely Source of Contamination                                       |
|--|----------------|--|------------------------------------|------|--------|--|
| Copper (ppm) (90 <sup>th</sup> percentile) | September 2021 | 0  | 0                                  | 1.3  | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits |
| Lead (ppb) (90 <sup>th</sup> percentile)   | September 2021 | 0  | 0                                  | 0    | AL=15  | Corrosion of household plumbing systems; erosion of natural deposits |

**Lead and Copper Contaminants: Gaffney Board of Public Works**

| Contaminant (units)                        | Sample Date     | Your Water (90 <sup>th</sup> Percentile) | Number of sites found above the AL | MCLG | AL     | Likely Source of Contamination                                       |
|--|-----------------|--|------------------------------------|------|--------|--|
| Copper (ppm) (90 <sup>th</sup> percentile) | Aug & Sept 2021 | 0.075                                    | 0                                  | 1.3  | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits |
| Lead (ppb) (90 <sup>th</sup> percentile)   | Aug & Sept 2021 | 0  | 0                                  | 0    | AL=15  | Corrosion of household plumbing systems; erosion of natural deposits |

**Total Organic Carbon (TOC): Broad River Water Authority**

| Contaminant (units)                | Sample Date  | TT Violation Y/N | Your Water | Range<br>Low - High | MCLG | TT | Likely Source of Contamination       |
|------------------------------------|--------------|------------------|------------|---------------------|------|----|--------------------------------------|
| Total Organic Carbon (ppm) – RAW   | Monthly 2023 | No               | 1.54       | 1.11 – 2.16         | N/A  | TT | Naturally present in the environment |
| Total Organic Carbon (ppm)-TREATED | Monthly 2023 | No               | .45        | <1.0 – 1.08         | N/A  | TT | Naturally present in the environment |

Note: Depending on the TOC in our source water the system MUST have a certain % of removal of TOC or must achieve alternative compliance criteria. If we do not achieve that % of removal there is an alternative % of removal. If we fail to meet that requirement, we are then in violation of a Treatment Technique. Our water contains very little Total Organic Carbon (TOC) so instead of using the % of removal criteria, we use an alternative (Alt 2), treated water TOC <2.0 mg/l as the method to comply with DBP treatment technique requirements.

**Total Organic Carbon (TOC): Gaffney Board of Public Works: 2023**

| Contaminant (units)                                | TT Violation Y/N | Your Water<br>(RAA Removal Ratio) | Range<br>Monthly Removal Ratio<br>Low - High | MCLG | TT | Likely Source of Contamination       |
|--|------------------|-----------------------------------|--|------|----|--------------------------------------|
| Total Organic Carbon (removal ratio) (TOC)-TREATED | No               | 57.8 %                            | 37.4 % – 73.3 %                              | N/A  | TT | Naturally present in the environment |

Disinfection of water sources is considered to be one of the major health advancements of the 20<sup>th</sup> century and involves the addition of chlorine to kill dangerous bacteria and microorganisms that could be in the water source(s).

**Disinfectant Residuals Summary: Grassy Pond North Carolina Sites**

|                | MRDL Violation Y/N | Your Water (RAA) | Range<br>Low High | MRDLG | MRDL | Likely Source of Contamination          |
|----------------|--------------------|------------------|-------------------|-------|------|---|
| Chlorine (ppm) | N                  | 1.39             | 0.8 – 1.9         | 4     | 4.0  | Water additive used to control microbes |

**Total Trihalomethanes (TTHM) and Haloacetic Acids (five) (HAA5): Grassy Pond NC**

| Contaminant (units)            | Year Sampled | MCL Violation Y/N | Your Water (highest LRAA) | Range<br>Low High | MCLG | MCL | Likely Source of Contamination           |
|--------------------------------|--------------|-------------------|---------------------------|-------------------|------|-----|--|
| TTHM (ppb)                     | 2023         | N                 |                           |                   | N/A  | 80  | Byproduct of drinking water disinfection |
| B01 – 1908 Bachelor Road       |              |                   | 0.035                     | 0.016 – 0.039     |      |     |  |
| B02 – 284 Prospect Church Road |              |                   | 0.031                     | 0.018 – 0.046     |      |     |  |
| HAA5 (ppb)                     | 2023         | N                 |                           |                   | N/A  | 60  | Byproduct of drinking water disinfection |
| B01 – 1908 Bachelor Road       |              |                   | 0.035                     | 0.021 – 0.037     |      |     |  |
| B02 – 284 Prospect Church Road |              |                   | 0.036                     | 0.029 – 0.036     |      |     |  |

**\*\*Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.**

**Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.**

The PWS Section requires monitoring for other misc. contaminants, some for which the EPA has set national secondary drinking water standards (SMCLs) because they may cause cosmetic effects or aesthetic effects (such as taste, odor, and/or color) in drinking water. The contaminants with SMCLs normally do not have any health effects and normally do not affect the safety of your water.

**Other Miscellaneous Water Characteristics Contaminants:**

| Contaminant (units)                          | Sample Date | Your Water | Range |      | SMCL       |
|--|-------------|------------|-------|------|------------|
|  |             |            | Low   | High |            |
| Sodium (ppm) – Gaffney Board of Public Works | 2023        | ND         | N/A   |      | N/A        |
| pH – Broad River Water Authority             | Hourly 2023 | 7.2        | N/A   |      | 6.5 to 8.5 |