

2025 ANNUAL DRINKING WATER QUALITY REPORT



Consumer Confidence Report for the Town of Mooresville
Public Water System Identification (PWSID) 01-49-015
February 1, 2026



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. The 2025 Annual Drinking Water Quality Report for the Town of Mooresville shows there have been no significant detections of monitored contaminants set forth by regulatory agencies.

For a full list of contaminants that are monitored on the North Carolina Department of Environmental Quality (NCDEQ) Drinking Water Watch website: <https://www.pwss.enr.state.nc.us/NCDWW2/> and enter NC0149015 for the Water System No.

If you have any questions about this report or concerns about your water, please contact Todd Hammons, Water Treatment Plant Manager, at 704-662-3186 or email chammons@mooresvillenc.gov. You may view this report on our website at [MooresvilleNC.gov/CCR](https://www.mooresvillenc.gov/CCR)

WHAT THE 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).

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 that is used by this system is Surface Water and is located at Lake Norman.

SOURCE WATER ASSESSMENT PROGRAM (SWAP) RESULTS

The North Carolina Department of Environmental Quality (NCDEQ), 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 Town of Mooresville 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
Lake Norman Intake	Higher	September 2020

The complete SWAP Assessment report for the Town of Mooresville may be viewed on the Web at : [SWAP REPORT](#). Please 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 report 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@ncmail.net. Please indicate your system name, PWSID 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

Algal Blooms

Algal blooms that cause adverse effects are known as Harmful Algal Blooms (HABs). When favorable environmental conditions exist, algae can reproduce rapidly and form blooms that appear as surface scums, water discoloration, or both. Blooms also cause major changes in water chemistry, including high pH and dramatic swings in dissolved oxygen. Lack of oxygen created by decomposing algal blooms sometimes results in fish kills and other aquatic life impacts.

Some algae, especially blue-green algae, can produce toxins. These toxins have been linked to adverse health effects in wildlife, domestic pets, and humans. DWR currently tests samples for microcystin, one of the most common and well-studied algal toxins.

When public health concerns arise from algae blooms, local health departments and the N.C. Department of Health and Human Services determine an appropriate response with technical support from DWR. Common actions include swimming closures, contact advisories, and the issuance of public notifications.

In addition to environmental and public health concerns, blooms can lead to economic losses due to increased drinking water treatment costs, decreased tourism and recreation, remediation efforts, fisheries losses, and decreased property values.

To protect your source water from algae blooms, focus on limiting nutrient pollution by using only the recommended amount of fertilizer on your lawn, properly maintaining your septic system, picking up pet

waste, and implementing landscaping practices that reduce runoff like rain barrels and native vegetation along water bodies; additionally, consider contacting your local water management authorities to learn about specific actions you can take in your area to combat algal blooms.

Key actions to prevent algae blooms:

- **Reduce fertilizer use:** Apply only the recommended amount of fertilizer on your lawn and follow label instructions carefully.
- **Proper septic maintenance:** Ensure your septic system is functioning properly to prevent nutrient leakage into the water.
- **Pet waste management:** Always pick up pet waste and dispose of it properly.
- **Landscaping practices:**
 - » **Rain barrels:** Install rain barrels to capture rainwater runoff before it reaches waterways.
 - » **Native vegetation:** Plant native plants along water bodies to help filter nutrients.
 - » **Mulch:** Use mulch to reduce soil erosion and nutrient runoff.
 - » **Minimize impervious surfaces:** Reduce paved areas to allow more water to infiltrate the ground.

You can help protect your community's drinking water source(s) in several ways: (ex: dispose of chemicals properly; take used motor oil to a recycling center, volunteer in your community to participate in group efforts to protect your source, etc.).

Track an Algal Bloom

Visit: [TRACK ALGAL BLOOM](#)

Algal Bloom and Fish Kill Dashboard to find more information on reported algal blooms statewide.

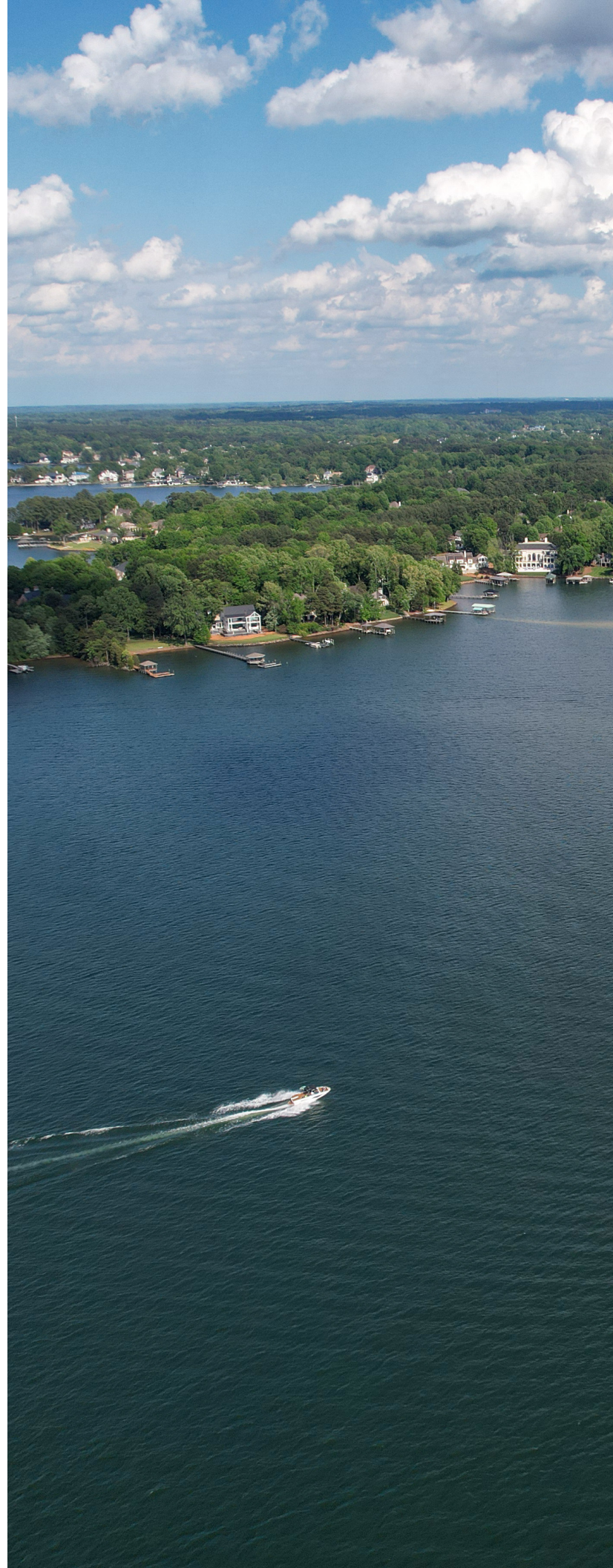
What to do if you see an Algal Bloom

- Stay out of the water, especially if you're unsure if a bloom is present.
- If a child is ill after being in the water, seek medical care immediately.
- If you see a fish kill, report it to the DEQ.
- If you see a bloom near a pet, contact your local veterinarian or the ASPCA Animal Poison Control Center at 1-888-426-4435.

Report Algal Bloom

Report an algal bloom on your phone, tablet, or PC by visiting NCDEQ: [REPORT ALGAL BLOOM](#)

You may also contact
Todd Hammons at 704-662-3186
or email chammons@moorevillenc.gov



Violations that Your Water System Received for the Report Year 2025

During 2025, or during any compliance period that ended in 2025, we received ***ZERO*** violations that covered that time period.

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.

Parts per quadrillion (ppq) or Picograms per liter (picograms/L) – One part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) – Picocuries per liter is a measure of the radioactivity in water.

Million Fibers per Liter (MFL) – Million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

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.

Variances and Exceptions – State or EPA permission not to meet an MCL or Treatment Technique under certain conditions.

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.

Level 1 Assessment – A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment – A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL 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.

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 TABLE 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, 2025. 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.

Lead and Copper Contaminants							
Contaminant (Units)	Sample Date	Your Water (90th Percentile)	Number of Sites found Above the AL	Range Low High	MCLG	AL	Likely Source of Contamination
Copper (ppm) (90th percentile)	7/23/2024	ND	0		1.3	1.3ppm	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90th percentile)	7/23/2024	ND	0		0	15ppb	Corrosion of household plumbing systems; erosion of natural deposits

The table above summarizes our most recent lead and copper tap sampling data. If you would like to review the complete lead tap sampling data, please email us at chammons@mooresvillenc.gov

We have been working to identify service line materials throughout the water system and prepared an inventory of all service lines in our water system. To access this inventory please visit our website at https://www.mooresvillenc.gov/government/departments/public_utilities/water_service_line_inventory.php

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. The Town of Mooresville 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, 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 in your water and wish to have your water tested, contact Town of Mooresville Water Treatment at 704-799-4019 or email chammons@mooresvillenc.gov . 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>.

Total Trihalomethanes (TTHM) and Haloacetic Acids (five) (HAA5)

Disinfection Byproduct	Year Sampled	MCL Violation Y/N	Your Water	Range Low High	MCLG	MCL	Likely Source of Contamination
TTHM (ppb)	2025	N	59	22 - 74	N/A	80	Byproduct of drinking water disinfection
HAA5 (ppb)	2025	N	48	20 - 45	N/A	60	Byproduct of drinking water disinfection

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

Disinfectant Residuals Summary

	MRDL Violation Y/N	Your Water (RAA)	Water Treatment Plant (WTP)	Range Low High	MRDLG	MCL	Likely Source of Contamination
Chlorine (ppm)	N	1.43	WTP 1	1.48 - 2.3	4	4.0	Water additive used to control microbes
			WTP 2	1.43 - 2.16			

Inorganic Contaminants

Contaminant (Units)	Year Sampled	MRDL Violation Y/N	Your Water (RAA)	Water Treatment Plant (WTP)	Range Low High	MCLG	MCL	Likely Source of Contamination
Fluoride (ppm)	2025	No	0.65	WTP 1	0.58 - 0.65	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
				WTP 2				

Turbidity* Results

Contaminant (Units)	Treatment Technique (TT) Violation Y/N	Your Water	Water Treatment Plant (WTP)	Highest Result NTU	MCLG	Treatment Technique (TT) Violation if:	Likely Source of Contamination
Turbidity (NTU) – Highest single turbidity measurement	N	0.29	WTP 1	0.29	N/A	Turbidity > 1.0 NTU	Soil Runoff
			WTP 2	.18			
Turbidity (NTU) – Lowest monthly percentage (%) of samples meeting turbidity limits	N	100%	WTP 1	100%	N/A	Less than 95% of monthly turbidity measurements are ≤ 0.3 NTU	
			WTP 2	100%			

* 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.

Total Organic Carbon (TOC)

Contaminant (Units)	Treatment Technique (TT) Violation Y/N	Your Water (Lowest RAA)	Range Monthly Removal Ratio Low - High	MCLG	Treatment Technique (TT) Violation if:	Likely Source of Contamination
Total Organic Carbon (TOC) Removal Ratio (no units)	N	1.00	1.00 - 1.00	N/A	Removal Ratio RAA <1.00 and alternative compliance criteria was not met	Naturally present in the environment

Microbiological Contaminant Results in the Distribution System

This table indicates that there was one detection of Coliform Bacteria in the Town of Mooresville distribution system. Repeat monitoring was conducted using the guidelines set forth for Rules Governing Public Water Systems. All repeat samples were total Coliform and E. coli negative. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes.

Microbiological Contaminant Results in the Distribution System

Contaminant (Units)	MCL Violation Y/N	Number of Positive / Present Samples	MCLG	MCL	Likely Source of Contamination
E. coli (presence or absence)	N	0	0	Note: If either an original routine sample and/or its repeat samples(s) are E. coli positive, a Tier 1 violation exists.	Human and animal fecal waste

Unregulated Contaminants UCMR5

Our water system has sampled for a series of 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 regulations are warranted. **All contaminants were not detected.** If you are interested in examining the results, please contact us at chammons@moorevillenc.gov

Other Miscellaneous Water Characteristics Contaminants

Contaminant (Units)	Sample Date	Your Water	Water Treatment Plant (WTP)	Range Low	High	Likely Source of Contamination
Sodium (ppm)	7/9/2025	13.1	WTP 1	13.1	13.7	N/A
		13.7	WTP 2			
pH	7/9/2025	6.7	WTP 1	6.6	6.7	6.5 to 8.5
		6.6	WTP 2			