2024 Annual Drinking Water Quality Report
City of Dunn
Water System Number: NC 03-43-010

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

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 Ian Stroud at (910) 897-5129. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held at, Dunn City Hall in the Courtroom at 6:30 PM. the fourth Tuesday of the month.**

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).

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 taken from the Cape Fear River.

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 **City of Dunn** 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
Cape Fear River	Higher	September 10, 2020

The complete SWAP Assessment report for City of Dunn 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. 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 help protect your community's drinking water source(s) in several ways: (examples: 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.).

Violations that Your Water System Received for the Report Year

During 2024, or during any compliance period that ended in 2024, we received no violations that covered the time period of 1-1-24 to 12-31-24.

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 trillion (ppt) or Nanograms per liter (nanograms/L)*** - One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.
- ***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 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 <u>detected</u> in the last round of sampling for each particular contaminant group. The presence of contaminants does <u>not</u> 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.** 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 (90^{th} Percentile)	Number of sites found above the AL	Range Low High	MCLG	AL	Likely Source of Contamination
Copper (ppm) (90^{th} percentile)	7/19-8/29/2022	0.14 (ppm)	0	ND-0.248 (ppm)	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90^{th} percentile)	7/18-8/29/2022	ND=Non Detect	0	ND	0	AL=15	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 **Dunnwp@dunn-nc.org.**

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, **A hard copy will be made available for review at City Hall.**

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. **City of Dunn** 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 **City of Dunn @ 910-897-5129**. 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	Range High	MCLG	MCL	Likely Source of Contamination
TTHM (ppb)	2024	N				N/A	80	Byproduct of drinking water disinfection
B01			41 (ppb)	38-43 (ppb)				
B02			44 (ppb)	39-48 (ppb)				
B03			39 (ppb)	35-41 (ppb)				
B04			38 (ppb)	36-41 (ppb)				
HAA5 (ppb)	2024	N				N/A	60	Byproduct of drinking water disinfection
B01			33 (ppb)	28-38 (ppb)				
B02			34 (ppb)	29-39 (ppb)				
B03			32 (ppb)	28-38 (ppb)				
B04			33 (ppb)	27-38 (ppb)				

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)	Range Low	Range High	MRDLG	MRDL	Likely Source of Contamination
Chlorine (ppm)	N	0.44 (ppm)	0.02 -2.4 (ppm)		4	4.0	Water additive used to control microbes
Chloramines (ppm)	N	2.27 (ppm)	1-3.5 (ppm)		4	4.0	Water additive used to control microbes

Inorganic Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low	Range High	MCLG	MCL	Likely Source of Contamination
Fluoride (ppm)	1/9/24	N	0.7 (ppm)	N/A		4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Synthetic Organic Chemical (SOC) Contaminants Including Pesticides and Herbicides

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low	Range High	MCLG	MCL	Likely Source of Contamination
Atrazine (ppb)	6/6/24	N	0.19 (ppb)	N/A		3	3	Runoff from herbicide used on row crops
Simazine (ppb)	6/6/24	N	0.08 (ppb)	N/A		4	4	Herbicide runoff

Turbidity*

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	0.25 NTU	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.

Total Organic Carbon (TOC)

Contaminant (units)	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	1.11	1.11-1.34	N/A	Removal Ratio RAA <1.00 and alternative compliance criteria was not met	Naturally present in the environment

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 Low	Range High	SMCL
Manganese (ppm)	1/9/24	0.012 (ppm)	N/A		0.05
Sodium (ppm)	1/9/24	31.39 (ppm)	N/A		N/A
Sulfate (ppm)	1/9/24	51 (ppm)	N/A		250
pH	1/9/24	7.6	N/A		6.5 to 8.5

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.
Unregulated Contaminants:

UCMR4 sampling 2019

Entry Point 1

Contaminant (units)	Sample Date	Your Water	Range Low	Range High
Micocystins (ug/L)	2019	ND	N/A	

Sample Point 50

Contaminant (units) ppb	Sample Date	Your Water	Range Low	Range High
Bromochloroacetic Acid	2019	8.36 (ppb)	6.62-12 (ppb)	
Bromodichloroacetic Acid	2019	6.58 (ppb)	4.46-10.3 (ppb)	
Chlorodibromoacetic Acid	2019	2.28 (ppb)	1.64-2.67 (ppb)	
Dibromoacetic Acid	2019	2.67 (ppb)	1.13-5.14 (ppb)	
Dichloroacetic Acid	2019	13.03 (ppb)	7.04 - 16.7 ppb	
Monobromoacetic Acid	2019	0.136 ppb	0.00 - 0.545 ppb	
Monochloroacetic Acid	2019	ND	N/A	
Tribromoacetic Acid	2019	0.625 ppb	0.0 - 2.50 ppb	
Trichloroacetic Acid	2019	8.92 ppb	3.57 - 21.5 ppb	

Sample Point 150

Contaminant (units)	Sample Date	Your Water	Range Low	Range High
Bromochloroacetic Acid	2019	7.43 ppb	4.78 - 11.5 ppb	
Bromodichloroacetic Acid	2019	5.3 ppb	4.16 - 9.28 ppb	
Chlorodibromoacetic Acid	2019	2.95 ppb	1.44 - 5.33 ppb	

Dibromoacetic Acid	2019	2.68 ppb	1.08 - 5.67 ppb
Dichloroacetic Acid	2019	10.3 ppb	13.21 - 5.44 ppb
Monobromoacetic Acid	2019	0.24 ppb	0.00 - 0.627 ppb
Monochloroacetic Acid	2019	ND	N/A
Tribromoacetic Acid	2019	1.56 ppb	0.00 - 3.45 ppb
Trichloroacetic Acid	2019	7.55 ppb	3.67 - 17.1 ppb

Sample Point L26

Contaminant (units) ppb	Sample Date	Your Water	Range Low High
Bromochloroacetic Acid	2019	8.29 (ppb)	5.64-12.2 (ppb)
Bromodichloroacetic Acid	2019	6.51 (ppb)	4.30-9.81 (ppb)
Chlorodibromoacetic Acid	2019	2.32 (ppb)	1.08-5.62 (ppb)
Dibromoacetic Acid	2019	2.87 (ppb)	1.13-5.14 (ppb)
Dichloroacetic Acid	2019	13.38 (ppb)	6.92 - 16.8 ppb
Monobromoacetic Acid	2019	0.136 ppb	0.00 - 0.545 ppb
Monochloroacetic Acid	2019	ND	N/A
Tribromoacetic Acid	2019	0.735 ppb	0.0 - 2.94 ppb
Trichloroacetic Acid	2019	8.68 ppb	3.81 - 21.5 ppb

Sample Point L24

Contaminant (units) ppb	Sample Date	Your Water	Range Low High
Bromochloroacetic Acid	2019	8.9 (ppb)	6.04 - 13.9 ppb
Bromodichloroacetic Acid	2019	6.85 (ppb)	4.52 - 9.92 ppb
Chlorodibromoacetic Acid	2019	2.73 (ppb)	1.75 - 4.88 ppb
Dibromoacetic Acid	2019	2.93 (ppb)	1.13 - 6.03 ppb
Dichloroacetic Acid	2019	15.09 (ppb)	7.07 - 20.6 ppb
Monobromoacetic Acid	2019	0.256 ppb	0.00 - .541 ppb
Monochloroacetic Acid	2019	0.57 ppb	0.00 - 0.226 ppb
Tribromoacetic Acid	2019	1.23 ppb	0.00 - 2.88 ppb
Trichloroacetic Acid	2019	9.53 ppb	3.75 - 22.8 ppb

Sample Point EP1

Contaminant (units) ppb	Sample Date	Your Water	Range Low	Range High
Manganese	2019	3.45 ppb	1.18-5.73 ppb	

Sample Point S01

Contaminant (units) ppb	Sample Date	Your Water	Range Low	Range High
Bromide	2019	143.4 ppb	93.8-193 ppb	
Total Organic Carbon (TOC)	2019	6040 ppb	5780 – 6300 ppb	

UCMR5 sampling 2023

Entry Point 1

Contaminant (units) ppb	Sample Date	Your Water	Range Low	Range High
perfluorobutanoic acid (PFBA)	2023	0.010 ppb	0.007 - 0.013 ppb	
perfluoropentanoic acid (PFPeA)	2023	0.013 ppb	0.008 - 0.022 ppb	
perfluorohexanoic acid (PFHxA)	2023	0.012 ppb	0.008 – 0.020 ppb	
perfluoroheptanoic acid (PFHpA)	2023	0.005 ppb	0.004 – 0.008 ppb	
perfluorooctanoic acid (PFOA)	2023	0.009 ppb	0.006 – 0.012 ppb	
Perfluorobutanesulfonic acid (PFBS)	2023	0.008 ppb	0.005 – 0.014 ppb	
Perfluorohexanesulfonic acid (PFHxS)	2023	0.004 ppb	0.003 – 0.005 ppb	
perfluorooctanesulfonic acid (PFOS)	2023	0.012 ppb	0.01-0.014 ppb	

UCMR5 sampling 2024

Entry Point 1

Contaminant (units) ppb	Sample Date	Your Water	Range Low	Range High
perfluorobutanoic acid (PFBA)	1/8/2024	0.0070 ppb	N/A	
perfluoropentanoic acid (PFPeA)	1/8/2024	0.0102 ppb	N/A	
perfluorohexanoic acid (PFHxA)	1/8/2024	0.0110 ppb	N/A	

perfluoroheptanoic acid (PFHpA)	1/8/2024	0.0047 ppb	N/A
perfluorooctanoic acid (PFOA)	1/8/2024	0.0087ppb	N/A
Perfluorobutanesulfonic acid (PFBS)	1/8/2024	0.0069 ppb	N/A
Perfluorohexanesulfonic acid (PFHxS)	1/8/2024	0.0040 ppb	N/A
perfluorooctanesulfonic acid (PFOS)	1/8/2024	0.0129 ppb	N/A

1,4 Dioxane sampled 6/24/23 – 0.34 ug/L in untreated raw water