

Annual Drinking Water Report 2018

System ID #SC292002

Is my water Safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. There were no violations of the safe drinking water act for year 2018. We are committed to providing you with information because informed customers are our best allies. You can also find and download a copy of this report from our website, <https://crwtp.org>.

Do I need to take special precautions?

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).



The source

Our water source is the Catawba River. Raw water is pumped from the Catawba River into a 23-acre reservoir for primary raw water settling. The raw water is pumped from the reservoir into the water plant for treatment.

Coagulation & Sedimentation

Chemicals are mixed into the water, which coagulates (form a solid material around small particles in the raw water), causing them to settle and create a blanket near the bottom of the clarifiers. The blanket acts as a preliminary filter. Over 99% of contaminants are removed at this process stage.

Filtration

The water flows through filters of anthracite and sand to remove any remaining particles.

Disinfection

Chloramines are added for microbial disinfection to ensure that the water is safe to drink when it reaches you.



At Catawba River Water Supply Project, we are committed to providing safe, high quality water services to our community, while maintaining a standard of excellence in customer service and environmental conservation. To meet this commitment we saw the need to construct a much larger reservoir to provide a 90-day supply of water reserve. The larger reservoir will not change the amount of water taken from the river, but it will help reduce its impact on users downstream. This project's scheduled completion is 2019.

We are proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants are present. The EPA has determined that your water is **SAFE** at these levels.

The Catawba River Water Supply Project routinely monitors for constituents in your drinking water according to Federal and State Laws. Beginning on page 5 are the results of our monitoring for January-December 2018.

If you have any questions about this report or to request a paper copy please contact Randy Hawkins CASP, CATAWBA RIVER WATER SUPPLY PROJECT at (803) 286-5957, by mail at PO Box 214, Van Wyck, SC 29744 or by e-mail (rhawkins@crwtp.org). We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our Catawba River Water Supply Project Board Meetings. Meetings are held quarterly at the Catawba River Water Treatment Plant. Please check our website (<https://crwtp.org>.) frequently to see when the next meeting is scheduled or contact Randy Hawkins, CASP at (803) 286-5957 for more information regarding meeting schedules.

Why are there contaminants in my drinking water?

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 (EPA) 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:

microbial contaminants, such as viruses and bacteria, that 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 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 agriculture, urban storm water 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 storm water 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 that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Additional Information for Lead

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. CRWSP 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>.

Conservation Tips and Facts from AWWA and EPA can help with household water conservation.

- Installing water-saving shower and cutting time one or two minutes can save 700 gallons a month.
- Wait until you have full loads of dishes and laundry to wash to get the most out of each load.
- Use pans to wash fruits and vegetables and buckets to clean floors, windows and cars instead of letting water run.
- Do not let water run when brushing teeth, shaving and washing dishes (fill the sink).
- Check your toilet and faucets regularly for leaks.
- Don't use your toilet as a wastebasket. Throw your trash in the garbage.
- Lawn Care: A healthy lawn is a good filter—it absorbs particulates normally washed into streams. Here are tips to keep a lawn healthy and conserve water.
- During high summer temperatures, the natural reaction for lawns is to slow-down growth..
- Many turf grasses do better when managed on the dry side and not wet. When the soil is constantly wet grass roots can become deprived of oxygen and are more susceptible to disease.
- The first few days of summer do not automatically mean water lawns. Letting lawns, experience mild drought stress can enhance rooting.
- On heavy clay soils and slopes, avoid excessive runoff. Letting water hit the driveway/or run into the street is wasteful.

In this report, you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms, we have provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

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 - 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.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

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.

Action Level - the concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

Highest Level Detected (HDL) - maximum amount found in any one sample

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

Maximum Contaminant Level (MCL) - The "Maximum Allowed" (MCL) is 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 "Goal" (MCLG) is 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 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.

Total Organic Carbon (TOC) Removal - The percent removal must be at least 1 or the system is in violation.

2018 Water Quality Data

MICROBIOLOGICAL CONTAMINANTS

Contaminant	Violation Yes/No	Level Detected	Measurement Unit	MCL	MCLG
Total Coliform Bacteria	No	0	Presence/Absence	Presence of Coliform in 5% of Monthly Samples	0 Presence

Typical Source of Contamination: Naturally present in the environment

Turbidity

Contaminant	Violation Yes/No	Highest Single Measurement Detected	Measurement Unit	Lowest Monthly Percentile	MCL	MCLG
Turbidity	No	0.09	NTU	100%	1.0	<0.30

Typical Source of Contamination: Soil run off

Disinfectants/ Disinfection By-Products

Contaminant	Violation Yes/No	Range of Levels Detected	Maximum Level Detected	Average Level Detected	Measurement Unit	MRDL	MRDLG
Chlorine	No	2.96-2.96	2.96	2.96	ppm	4.0	4.0
Chlorite	No	BDL-0.96	0.96	0.48	ppm	1.0	0.8
Chlorine Dioxide	No	BDL-BDL	BDL	BDL	ppm	0.8	0.8

Typical Source: Water additives used to control microbes

*BDL Below Detection Limit

Contaminant	Violation Yes/No	Range of Levels Detected	*Highest LRAA Detected	Measurement Unit	MCL	MCLG
Haloacetic Acid (HAA5s)	No	12.0-12.4	13.0	ppb	60	No goal set for total
TTHMs Total Trihalomethanes	No	20.8-21.9	22.0	ppb	80	No goal set for total

Typical Source: By-products of drinking water disinfectant.

Parts per billion corresponds to a single penny in \$10,000,000.

*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 system and may have increased risk of getting cancer.

Total Organic Carbon Test Results

Contaminant	Violation Yes/No	Range of Levels Detected	Measurement Unit	Sample Frequency	**RAA	MCL	MCLG
Total Organic Carbon	No	1.7-3.3	ppm	Monthly	1.18	*TT	TT

Typical Source of Contamination: Naturally present in the environment

*TT is a treatment technique that is a required process intended to reduce the level of contaminant in drinking water.

** Running Annual average. RAA must be greater than 1.0 to meet compliance.

Inorganic Contaminants

Contaminant	Violation Yes/No	Range of Levels Detected	Highest Level Detected	Average Level Detected	Measurement Unit	MCL	MCLG
Fluoride	No	0.62-0.62	0.62	0.62	ppm	4.0	4.0
Nitrate (measured as nitrogen)	No	1.0-1.0	1.0	1.0	ppm	10.0	10.0

Typical Source of Contamination:

Fluoride: Erosion of natural deposits; water additive to promote strong teeth; discharge from fertilizer and aluminum factories

Nitrate (measured as nitrogen): Run off from fertilizer use; leakage from septic tanks, sewage, erosion of natural deposits. 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 because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Lead and Copper Results

Contaminant	Violation Yes/No	Range of Levels Detected	Highest Level Detected	90 th Percentile	Measurement Unit	*Sample Frequency	Action Level	Sites over Action Level
*Copper	No	0.113-0.581	0.581	0.436	ppm	3 years	1.3	0
*Lead	No	0.0-4.0	4.0	2.0	ppb	3 years	15.0	0

*Sample Date 7/02/2018

Typical Source of Contamination:

Copper: Corrosion of household plumbing systems containing copper; erosion from natural deposits

Lead: Corrosion of materials containing lead in household plumbing

Action Level: A concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow

Parts per million corresponds to a single penny in \$10,000.

Parts per billion corresponds to a single penny in \$10,000,000.

Un-Regulated Organic Contaminants

Contaminant	Violation Yes/No	Range of Levels Detected	Average Level Detected	Measurement Unit	MCL	MCLG
*Metolachlor	No	0.00012-0.00012	0.00012	ppm	No Standard	No Standard

*Metolachlor is an **unregulated chemical** found in herbicide for pre-emergence and pre-plant weed control for farm crops and pesticides. It is analyzed every year as a semi-volatile pesticide. Currently there is no standard. **An unregulated contaminant is a contaminant for which a national primary water regulation has not been established.**

General Interest Table

Constituent/ Unit of Measurement	Highest Level Recommended	Range Detected	Highest Level Detected	Average Level
pH is a measurement of the degree in which water may be acidic or basic. Measured in standard units , on a scale of 0 (most acidic) to 14 (most basic) with 7 being neutral.	6.5-8.5s.u	7.11-7.42s.u	7.42s.u	7.18s.u
ALKALINITY is an unregulated constituent measured (ppm) as calcium carbonate (CaCO ₃), and refers to a water's buffering capacity the ability to keep the pH stable as acids.	No Standard	20-27ppm	27ppm	23.1ppm
HARDNESS denotes high mineral content, mainly calcium and magnesium (ppm) Drinking water is considered soft if less than 70 ppm or 4 grains per gallon.	No Standard	21-32ppm	32ppm	26.4ppm
SODIUM is a necessary nutrient in the human body, and is found naturally in eroded natural deposits and leaching. Measured in ppm . Note: Tap water may contain sodium over 20 ppm recommended for sodium-restricted diets.	No Standard	13-13ppm	13ppm	13ppm
WATER TEMPERATURE in the distribution system measured in degrees Celsius .	No Standard	9.2-28.8°C	28.8°C	20.0°C
Total Dissolved Solids measured as the dissolved minerals in the water. Measured thru conductivity in ppm .	No Standard	116.7-194ppm	194ppm	142.2ppm