Consumer Confidence Report
2021

System ID/ Permit #SC2920002

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. 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/water-quality-report. Catawba River Water Supply Project did not incur any health-based violations for the calendar year 2021. We met all compliance monitoring.

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).

Where does my water come from?

The Source

Our water source is the Catawba River. Raw water is pumped from the Catawba River into a 23-acre pre -settling reservoir and then to a 90- acre reservoir for secondary raw water settling. The raw water is pumped from the larger reservoir to the water plant for treatment.

Coagulation & Sedimentation

Chemicals are mixed in the water, which coagulates (forms 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. CRWSP began using membrane technology as part of the filtration process in 2021.

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 30-day supply of water reserve. The larger reservoir does not change the amount of water taken from the river, but it helps reduce its impact on users downstream. The project was completed in 2019.

In 2020 CRWSP made numerous improvements to the facility. This included improvements to the existing treatment trains to improve settleability of solids in the raw water, replacement of filter media, adding 6 million gallons per day of membrane filter technology. Some of these improvements were put into service in 2020. Others were put into place in 2021.

Source Water assessment and its availability

We have learned through our monitoring and testing that some contaminants are present. Our raw water sources are most susceptible to contamination from runoff or environmental conditions. The EPA has determined that your water is **SAFE** at these levels. Our Source Water Assessment Plan is available upon request. Please contact Catawba River Water Supply Project at 803-205-0041 to arrange to review this document.

The Catawba River Water Supply Project routinely monitors for constituents in your drinking water according to Federal and State Laws. See water quality data reports for results of our monitoring for January-December 2021. The Catawba River Water Supply Project did not incur any health-based violations for the calendar year. We met all compliance monitoring.

If you have any questions about this report, or to request a paper copy please contact:

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We want our valued customers informed about their water utility. If you want to learn more, please attend our Catawba River Water Supply Project Board Meetings. Please check our website at https://crwsp-my.sharepoint.com/:b:/g/personal/jwallace_crwtp_org/Efjzt90vby1EtAceHSj789gBm91OSgkDK4MZ8TSVhOEWoA?e=CgqoKq frequently to see when the next meeting is scheduled or contact Randy Hawkins, CASP at (803) 205-0041 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.

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.

How can I get involved? (Water Conservation Tips)

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons of water per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference-try one today and soon it will be second nature.

- *Use a water efficient showerhead. They are inexpensive, easy to install, and can save you up to 750 gallons a month.*
- *Take short showers – a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.*
- *Run your clothes washer and dishwater only when full. You can save up to 1,000 gallons per month.*
- *Shut off water while brushing your teeth, washing your hair, and shaving and save up to 500 gallons a month.*
- *Water plants only when necessary.*
- *Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowel without flushing, you have a leak. Fixing or replacing it with a new, more efficient model can save up to 1,000 gallons a month.*
- *Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.*
- *Teach your kids about water conservation to ensure a future generation that uses it wisely. Make it a family effort to reduce next month's water bill.*
- *Visit www.epa.gov/watersense for more information.*

Source Water Protection Tips

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public system.
- Dispose of chemicals properly; take used motor oil to the recycling center.
- Volunteer in your community. Find a watershed or a wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community or visit the Watershed Information Network's How to Start a watershed Team.
- Organize a storm drain-stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No waste – Drains to River or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

Additional Information for Lead and Copper

See Appendix A for additional information for Lead and Copper

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations, which limit the amount of contaminants in water provided by public water systems. The table below lists all the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or this system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table, you will find terms and abbreviations that may not be familiar to you. To help you better understand these terms, we have provided these definitions below the table.

Contaminant Table Elements

MCL – expressed as a number >1.0	Detected Contaminant data
MCLG – same units as MCL	Date of sample if sampling is less than annually
TT or AL if no MCL	Likely sources of contaminants – Appendix A

Converting Laboratory Units in CCR Units

- The CCR Rule requires MCLs to be presented as numbers greater than or equal to 1.0.
- All results in the CCR must be presented in the same unit of measurement as the MCL.
- Laboratory results may be less than 1.0 and they must be in the same units as MCL.

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

Unit Descriptions	
Term	**Definition**
ppm	ppm: parts per million, or milligrams per liter (mg/l)
ppb	ppb: parts per billion, or micrograms per liter (mg/l)
ppt	ppt: parts per trillion or nanograms per liter (nanograms/l
ppq	Ppq: or pictograms per liter (pictograms/l)
pCi/L	pCi/L: or picocuries per liter
mrem/yr	mrem/yr: or millirems/year
mfl/l	mf/l: or million fibers per liter
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required but recommended.
NTU	NTU: or nephelometric turbidity unit
TOC	TOC: or Total Organic Carbon

Term	Definition
HLD	(HLD) or highest level detected
MCLG	MCLG: Maximum Contaminant Level Goal: 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.
MCL	MCL: Maximum Contaminant Level: 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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. 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.
MRDL	MRDL: Maximum residual disinfectant level. 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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

For more information, please contact:
Catawba River Water Supply Project System ID/ Permit #SC2920002

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2021 Water Quality Data

MICROBIOLOGICAL CONTAMINANTS

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

*** Typical Source of Contamination: Naturally present in the environment. Coliforms are bacteria 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.**

Turbidity

Contaminant	Violation Yes/No	Highest Single Measurement Detected	Measurement Unit	Lowest Monthly Percentile	MCL	MCLG
Turbidity	**No**	0.2	NTU	100%	1.0	<0.30

Typical Source of Contamination: Soil run off; A measure of "cloudiness" of the water.

Disinfectants/ Disinfection By-Products

Contaminant	Violation Yes/No	Range of Levels Detected	Maximum Level Detected	Average Level Detected	Measurement Unit	MRDL	MRDLG
Chlorine	**No**	3.0-3.0	3.0	3.0	ppm	4.0	4.0
Chlorite	**No**	0.01-0.48	0.48	0.32	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 There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants. Sample Dates 2021

Contaminant	Violation Yes/No	Range of Levels Detected	*Highest LRAA Detected	Measurement Unit	MCL	MCLG
Halo-acetic Acid (HAA5s)	**No**	9.9-10.3	10.0	ppb	60	No goal set for total
*TTHMs Total Trihalomethanes	**No**	12.7-12.7	13.0	ppb	80	No goal set for total

Typical Source: By-products of drinking water disinfectant. Sample Date 7/26/2021
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**	1.5-1.9	ppm	Monthly	2.0	*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**	0.70-0.70	0.70	0.70	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.

Detected Containments Table
Lead and Copper Results

Contaminant	Violation Yes/No	Range Of Levels Detected	Highest Level Detected	90th Percentile	Measurement Unit	*Sample Frequency	Action Level	MCLG	Sites over Action Level
*Copper	**No**	0.056-0.194	0.194	0.153	ppm	3 years	1.3	0	0
*Lead	**No**	<2.0-<2.0	<2.0	<2.0	ppb	3 years	15.0	0	0

***Sample Date 8/18/2021 The most recent lead and copper sampling results show no violations.**
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.

See Appendix A for more information on Copper and Lead in Drinking Water.

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	6.94-7.34s.u.	7.34s.u.	7.10s.u.
ALKALINITY is an unregulated constituent measured (ppm) as calcium carbonate (CaCO3) and refers to a water's buffering capacity the ability to keep the pH stable as acids.	No Standard	16-31ppm	31ppm	24ppm
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	15-28ppm (0.88- 1.6gr/gal)	28ppm (1.6gr/gal)	22ppm (1.28gr/gal)
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	12ppm-12ppm	12ppm	12ppm
WATER TEMPERATURE in the distribution system measured in degrees Celsius.	No Standard	9.2-29.7 Celsius	29.7 Celsius	19.6 Celsius
Total Dissolved Solids measured as the dissolved minerals in the water. Measured thru conductivity in ppm.	No Standard	87-162ppm	162ppm	139ppm

Appendix A

Lead: Typical source is corrosion of household plumbing systems and/or erosion of natural deposits. Low levels of exposure in young children, infants and fetuses have been linked to damage to the central and peripheral nervous system, learning disabilities, shorter stature, impaired hearing, and impaired formation and function of blood cells. During pregnancy, lead is released from bones as maternal calcium and is used to help form the bones of the fetus. This is particularly true if a woman does not have enough dietary calcium. Lead can also cross the placental barrier exposing the fetus to lead. This can result in serious effects to the mother and her developing fetus, including reduced growth of the fetus and premature birth.

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. The Catawba River Water Supply Project 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.**

Copper: Typical source is corrosion of household plumbing systems and/or erosion of natural deposits. Eating or drinking too much copper can cause vomiting, diarrhea, stomach cramps, nausea, liver damage, and kidney disease. People with Wilson's disease and some infants (babies under one year old) are extra sensitive to copper. To reduce copper intake Let the water run for at least 30-60 seconds before using it for drinking or cooking if the water has not been turned on in over six hours. Use cold water for drinking, making food, and making baby formula. Hot water releases more copper from pipes than cold water. Test your water. In most cases, letting the water run and using cold water for drinking and cooking should keep copper levels low in your drinking water. If you are still concerned about copper, arrange with a laboratory to test your tap water. Testing your water is important if an infant or someone with Wilson's disease drinks your tap water. All testing should be done through an accredited laboratory.