Volume 23 • Issue 1 • July 2021

Annual Drinking Water

Report

HOW CAN I GET INVOLVED?

- Water Conservation Tips -

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 become second nature.

- Take short showers - a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient shower head. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 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 toilet bowl without flushing, you have a leak. Fixing it 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 the water conservation to ensure a future generation that uses water 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.*
- Use water smart landscaping and irrigation.
- 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 water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.

Is My Water Safe?

We are pleased to provide 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.

1,095 miles
of waterlines
Equals the distance from Lancaster, SC to Ft. Worth, TX

364 miles
of gravity sewer & force main
Equals the distance from Lancaster, SC to Jacksonville, FL

31,000+
WATER CUSTOMERS

19,800+
SEWER CUSTOMERS

LCWSD
Lancaster County Water & Sewer District

IN-184721-LCWSD

Questions? Call 803-285-6919 or 1-800-832-2126 OR go to our website - www.lcwasd.org

On this page are the results of our monitoring for Jan.-Dec., 2020, unless otherwise noted
Lancaster County Water & Sewer District System # 2920001; Catawba River Water Treatment Plant System # 2920002

Annual Drinking Water Report

Behind the lines

Brad Bucy
Manager
9 years with the district

Margaret Flow
Business Manager
22 years with the district

Robbie Peagler
Utilities Coordinator
23 years with the district

Paul Rickenbaker
Water Superintendent
14 years with the district

Gerald Cauthen
Sewer Superintendent
15 years with the district

Chris Richardson
IL Wastewater Treatment Facility Director
20 years with the district

Randy Hawkins
Catawba River Water Treatment Plant Director
6 years with the district

James Hawthorne
Development Engineer
15 years with the district

Not in violation

Chlorine

Typical source:
Water additive used to control microbescontrol microbes

(MRDL & MRDLG)
Maximum Allowed
4
parts per million

Annual average
2.92

- The annual average was for water we purchased from the Catawba River Water Treatment Plant and ranged from a high of 3.20 to a low of 2.12.

• Maximum residual disinfection level (MRDL) is the highest level of disinfectant allowed in drinking water. Maximum residual disinfection level goal (MRDLG) is the level of drinking water disinfectant below which there is no known or expected risk to health.

Not in violation

Chlorite

Typical source:
Water additive used to control microbes

- Parts per million corresponds to 1 minute in 2 years or a single penny in $10,000

(MRDL & MRDLG)
Maximum Allowed
1.0 MRDL & 0.8 MRDLG
parts per million

Annual average
0.40

- Annual average was for water we purchased from Catawba River Water Treatment Plant & ranged from a high of 0.54 to a low of 0.40.

Not in violation

Chlorine Dioxide

Typical source:
Water additive used to control microbes

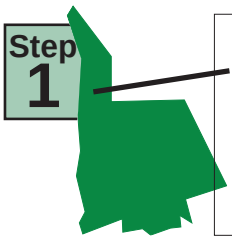
(MRDL & MRDLG)
Maximum Allowed
80
parts per billion

- Parts per billion corresponds to 1 minute in 2,000 years or 1 penny in $10,000,000

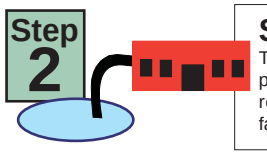
Annual average
Below detectable limits

- Annual average was for water we purchased from Catawba River Water Treatment Plant & ranged below detectable limits.

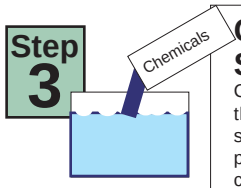
Where we get our water & how it's treated



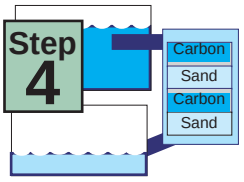
The source
Raw water is pumped from the Catawba River into a 23-acre lake for pre-settling raw water, then travels into a 92-acre reservoir at the Catawba River Water Treatment Facility at 5107 Riverside Road



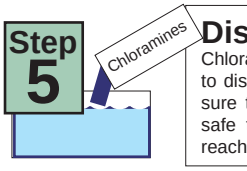
Settling
The raw water is pumped from the reservoir into the facility for treatment



Coagulation & Sedimentation
Chemicals are mixed into the water which form a solid material around small particles in the raw water, causing them to settle to the bottom of large settling tanks. The particles are then removed



Filtration
The water flows through filters of carbon and sand to remove any remaining



Disinfection
Chloramines are added to disinfect and to ensure that the water is safe to drink when it reaches you.

As water travels over land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances.

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember the presence of these contaminants doesn't necessarily pose a health risk.

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.

For more information about contaminants and potential health effects or for EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline – 1-800-426-4791.

Wes Carter
Operations Manager
7 years with the district

Darrell Fenton
Quality Control Coordinator
14 years with the district

English Henderson
Human Resources Director
2 years with the district

Neil Rollins
IT Director
1 year with the district

C. F. Truesdale
Office Manager
24 years with the district

Michael Marcus
GIS Director
8 years with the district

Kerri Baker
Finance Director
1 year with the district

Quincy Reed
Route Tech Supervisor
13 years with the district

Tim Kiser
Professional Engineer
2 years with the district

Not in violation

Nitrate

Typical source of nitrate:
Runoff from fertilizer use, leaching from septic tanks or sewage, erosion of natural deposits.

(MCL & MCLG) **Maximum Allowed** 10 parts per million

Annual average 0.93 Catawba

- The Maximum Contaminant Level is set by DHEC and is the highest level of contaminant allowed in drinking water.
- Parts per million corresponds to one minute in two years or a single penny in $10,000.
- The "goal" (MCLG) is the level of a contaminant in drinking water below which no known or expected risk to health exists. MCLGs allow for a margin of safety.

- Annual average was 0.93 for water purchased from Catawba River Water Treatment Plant.

Not in violation

Fluoride

Typical source:
Erosion of natural deposits, water additive to promote strong teeth, discharge from fertilizer and aluminum factories.

(MCL& MCLG) **Maximum Allowed** 4 parts per million

Annual average 0.62 Catawba

- Maximum Contaminant Level is set by DHEC and is the highest level of contaminant allowed in drinking water.
- Parts per million corresponds to one minute in two years or a single penny in $10,000.
- The "goal" (MCLG) is the level of a contaminant in drinking water below which no known or expected risk to health exists. MCLGs allow for a margin of safety.

- Annual average was 0.62 for water purchased from Catawba River Water Treatment Plant.

Not in violation

Total Trihalomethanes

Typical source:
By-product of drinking water disinfectant

(MCL) **Maximum Allowed** (Action level) 80 parts per billion

Annual average 23.8

- Parts per billion corresponds to one minute in 2,000 years or 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 systems and may have an increased risk of getting cancer.

- Annual average was 23.8 for water purchased from Catawba River Water Treatment Plant and ranged from a high of 93.0 to a low of 12.

Not in violation

Lead

Typical source:
- Corrosion of materials containing lead in household plumbing.
- Parts per billion corresponds to one minute in 2,000 years or a single penny in $10,000,000.

(MCL) **Maximum Allowed** (Action level) 15 parts per billion

Highest amount detected in our water (90th percentile value) 8.0 2019 results

- Laboratory analysis indicates that lead is not present above the limit.
- Not required to sample again until September 2022.
- See important information below about lead and copper.

Not in violation

Copper

Typical source:
- Corrosion of materials containing copper in household plumbing, erosion of natural deposits.
- Action Level is concentration of contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Parts per million corresponds to 1 minute in 2 years or 1 penny in $10,000.

(MCL) **Maximum Allowed** (Action level) 1.3 parts per million

Highest amount detected in our water (90th percentile value) 0.22 2019 results

- Not required to sample again until Sept. 2022

Not in violation

Haloacetic acids (HAAs)

Typical source:
By-product of drinking water disinfectant
- Parts per billion corresponds to one minute in 2,000 years or a single penny in $10,000,000.

(MCL) **Maximum Allowed** (Action level) 60 parts per billion

Annual average 10.7

- Annual average was 10.7 for water purchased from Catawba River Water Treatment Plant and ranged from a high of 27.9 to a low of 7.0.

Not in violation

Total Organic Carbon

Typical source:
Naturally present in environment

Maximum Allowed TT

Level detected 1.28 - RAA

- The range met the requirement. Sample frequency was monthly.

- TT is defined as a treatment technique that is a required process intended to reduce the level of contaminant in drinking water. Running Annual Average, RAA must be more than 1.0 to meet compliance.

Important lead & copper information

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 household plumbing.
- Lancaster County Water & Sewer District is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components.
- When your water sits 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 drinking water, you may wish to have yours 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.

A Source Water Assessment Plan (SWAP) has been completed for LCWSD's water system. SWAPs, among other things, identify potential sources of contamination to drinking water supplies. For a copy, please call LCWSD at 285-6919 or 1-800-832-2126 during normal business hours.

Compliance with Other Drinking Water Regulations

Unregulated Contaminants *Drives Future Water Treatment Needs*

Unregulated contaminants do not yet have a drinking water standard set by USEPA. LCWSD is required to monitor these contaminants within our distribution system and the purpose of monitoring for these contaminants is to help USEPA decide whether the contaminants should have a standard. The following Additional Monitoring table charts detections of unregulated contaminants.

Contaminants from UCMR4 Sampled during 2019	Average of Results (ppb)	Range (ppb)
HAA5	11.92	6.39 - 23.72
HAA6Br	5.29	3.47 - 6.26
HAA9	16.80	9.86 - 29.59

Reference doses and health effects language can be found at:
https//www.epa.gov/dwucmr/fact-sheets-about-fourth-unregulated-contaminant-monitoringrule-ucmr-4

Important Information About Your Drinking Water

The Catawba River Water Supply Project did not meet treatment requirements. On May 7, 2020, the Catawba River Water Supply Project did not meet the turbidity requirements for several hours. This was related to a construction project and a temporary failure of chemical addition that removes turbidity from the water.

A sample taken that day was recorded at 1.68NTUs which exceeded the treatment limit of 1.0NTUs. Because of this, there was an increased chance that the water may have contained disease-causing organisms. The water was tested and there was no indication of disease-causing organisms. A notice for the turbidity violation was posted to our website, facebook and twitter pages on July 9, 2020.

This was not an emergency. If it had been you would have been contacted within 24 hours of the occurrence.

**Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.*
**These symptoms are not caused only by organisms in the drinking water.*

Catawba Water Supply Project ensured through operations that the water turbidity returned to normal levels within a few hours of the incident.

Level 1 Assessment *Sampling Sites*

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. During the past year, we were required to conduct a Level 1 assessment on one (1) occasion when the sampling data from June, 2020 exceeded the standard for total coliform. The presence of total coliform in 5% of monthly samples is the maximum contaminant level.

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. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

We completed the assessment in July, 2020 and corrective actions were isolated to the sample site locations; including notification to the property owners of potential cross-contamination associated with new plumbing fixtures, use of pipe thread lubricants or seals, and outdoor spigots located in close proximity to the ground. Another corrective action included additional training of new sampling employees on proper sample procedures and protocol.

Regulatory Controls

- 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 health.

Commission:

This report is provided as a service. Please share your comments with us, so we can improve our efforts to get you information you need.

Gerald E. White, Chairman
Alfred "Doc" Steele, Vice Chairman
Robert Barr, Secretary
James C. Deaton
R. Larry Hammond
Robert A. Harris
Stephen E. White
Michael G. Williams
Sammie Harper

The Commission meets at 6:30 p.m. the 2nd Tuesday of each month at LCWSD's office unless otherwise announced.