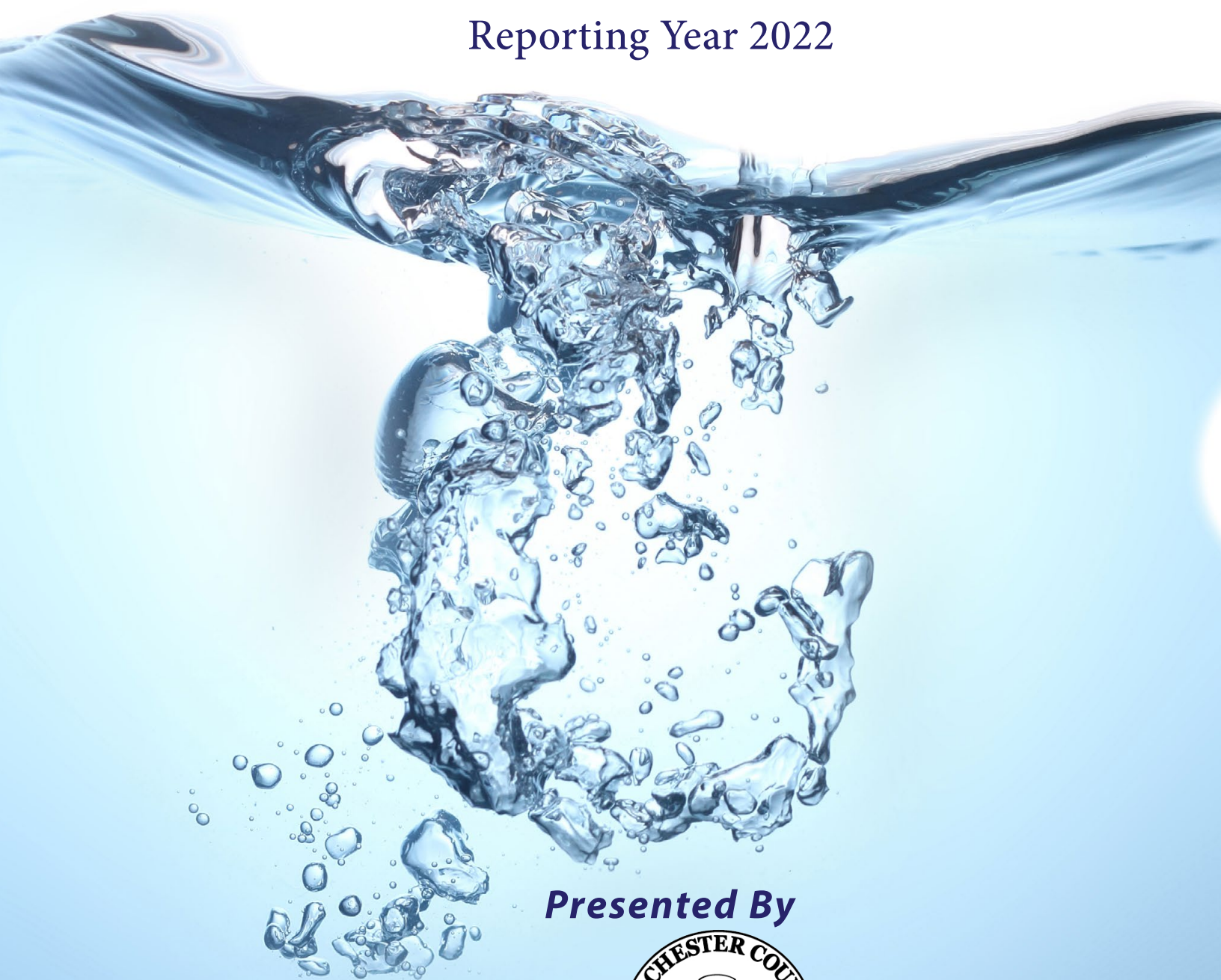


ANNUAL WATER QUALITY REPORT

Reporting Year 2022



Presented By



PWS ID#: SC 182001
Knightsville; SC
1850009 Calomet; SC
1820003 Tranquil



Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2022. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. Please remember that we are always available should you ever have any questions or concerns about your water.

Community Participation

If you would like to learn more about your water provider, please attend any of our scheduled board meetings. They are held at 5:30 p.m. on the second Monday of each month in our office.

Where Does My Water Come From?

The Knightsville system uses blended water. In an effort to provide our customers with the highest-quality water at an economical price, Dorchester County Water Authority purchases some of our water from Summerville Commissioners of Public Works (SCPW). Surface water from SCPW is purchased from the Santee Cooper Lake Moultrie Regional Water System, whose source water is Lake Moultrie. Local wells provide water that is blended with the Knightsville system's supply and then distributed to your home or business.



Calomet Valley and Tranquil water systems use master meters. Your water is surface water purchased from SCPW, which purchases its water from Santee Cooper Lake Moultrie Regional Water System. Santee Cooper's source is Lake Moultrie, a 60,000-acre freshwater lake that is part of the Catawba-Santee water basin.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The

U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



Lead in Home Plumbing

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. Dorchester County Water Authority is responsible for providing high-quality drinking water, but we 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 two 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

Source Water Assessment

A source water assessment has been completed for our water supplier. The purpose of the assessment is to determine the susceptibility of each drinking water source to potential contaminant sources. The report includes background information and a relative susceptibility rating of higher, moderate, or lower. 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 within the assessment area. You may view more a copy of the assessment at www.scdhec.gov/sites/default/files/docs/HomeAndEnvironment/Docs/Watershed/wwqa/Santee_WWQA_2013.pdf.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Richie Murdaugh at (843) 875-0140. You may also contact us at www.dcwonline.com.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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 may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Q & A

What type of container is best for storing water?

Consumer Reports has consistently advised that glass or BPA-free plastics such as polyethylene are the safest choices. To be on the safe side, do not use any container with markings on the recycle symbol showing 7PC (that's code for BPA). You could also consider using stainless steel or aluminum with BPA-free liners.

How much emergency water should I keep?

Typically, one gallon per person per day is recommended. For a family of four, that would be 12 gallons for three days. Humans can survive without food for one month but can only survive one week without water.

How long can I store drinking water?

The disinfectant in drinking water will eventually dissipate, even in a closed container. If that container housed bacteria prior to filling up with the tap water, the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water can be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.

How long does it take a water supplier to produce one glass of treated drinking water?

It can take up to 45 minutes to produce a single glass of drinking water.

How many community water systems are there in the U.S.?

About 53,000 public water systems across the United States process 34 billion gallons of water per day for home and commercial use. Eighty-five percent of the population is served by these systems.

Which household activity wastes the most water?

Most people would say the majority of water use comes from showering or washing dishes; however, toilet flushing is by far the largest single use of water in a home (accounting for 40 percent of total water use). Toilets use about 4 to 6 gallons per flush, so consider an ultra-low-flow (ULF) toilet, which requires only 1.5 gallons.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	Tranquil System-1820003		Knightsville System-1820001		Calomet Valley System-1850009		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Beta/Photon Emitters (pCi/L)	2022	50 ¹	0	NA	NA	7.51	ND-7.51	NA	NA	No	Decay of natural and human-made deposits
Chlorine (ppm)	2022	[4]	[4]	2.31	0.07-3.00	1.83	0.92-2.5	3.0	2.1-3.5	No	Water additive used to control microbes
Combined Radium (pCi/L)	2022	5	0	NA	NA	0.0719	ND-0.0719	NA	NA	No	Erosion of natural deposits
Fluoride (ppm)	2022	4 ²	4	NA	NA	2.4	ND-2.4	NA	NA	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs]-Stage 1 (ppb)	2022	60	NA	13.44	9.59-20.00	11.57	5.6-17.26	17	17-17.03	No	By-product of drinking water disinfection
Nitrate (ppm)	2022	10	10	NA	NA	1.00	1.00-2.00	NA	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [total trihalomethanes]-Stage 1 (ppb)	2022	80	NA	31.58	26.56-37.37	28	16.10-43.40	31 ³	31-31.34 ³	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	Tranquil System-1820003		Knightsville System-1820001		Calomet Valley System-1850009		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES		
Copper (ppm)	2022	1.3	1.3	0.0072	0/10	0.0046 ⁴	0/30 ⁴	0.0055 ^{3,5}	0/5 ^{3,5}	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2022	15	0	0.37	0/10	0.15 ⁴	0/30 ⁴	0.90 ^{3,5}	0/5 ^{3,5}	No	Lead service lines; Corrosion of household plumbing systems, including fittings and fixtures; Erosion of natural deposits

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Tranquil System-1820003		Knightsville System-1820001		Calomet Valley System-1850009		TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	
Sodium (ppm)	2020	NA	NA	220	130-220	NA	NA	Naturally occurring; Road runoff; Water treatment; Ion exchange softening units

¹The MCL for beta particles is 4 millirems per year. U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.

²South Carolina has set a secondary MCL of 2 ppm for fluoride; the U.S. EPA MCL is 4 ppm. Some people who drink water containing fluoride in excess of the MCL over many years can get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

³Sampled in 2021.

⁴Sampled in 2020.

⁵Next monitoring period is June 1 through September 30, 2024.

Santee Cooper Regional Water System Results

SUBSTANCE (UNIT OF MEASURE)	MCL	AVERAGE LEVEL DETECTED
Alkalinity (ppm)	NS	19
Total Hardness (ppm)	NS	23
Conductivity (µmhos/cm)	NS	132
Temperature (C)	NS	20.07
Sodium (ppm)	NS	13
pH (SU)	6.5 - 8.5	7.8
Nitrates (ppm)	10	0.15



Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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.

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.

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.

MRDLG (Maximum Residual Disinfectant 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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

What Are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a group of manufactured chemicals used worldwide since the 1950s to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water. During production and use, PFAS can migrate into the soil, water, and air. Most PFAS do not break down; they remain in the environment, ultimately finding their way into drinking water. Because of their widespread use and their persistence in the environment, PFAS are found all over the world at low levels. Some PFAS can build up in people and animals with repeated exposure over time.

The most commonly studied PFAS are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). PFOA and PFOS have been phased out of production and use in the United States, but other countries may still manufacture and use them.

Some products that may contain PFAS include:

- Some grease-resistant paper, fast food containers/wrappers, microwave popcorn bags, pizza boxes
- Nonstick cookware
- Stain-resistant coatings used on carpets, upholstery, and other fabrics
- Water-resistant clothing
- Personal care products (shampoo, dental floss) and cosmetics (nail polish, eye makeup)
- Cleaning products
- Paints, varnishes, and sealants

Even though recent efforts to remove PFAS have reduced the likelihood of exposure, some products may still contain them. If you have questions or concerns about products you use in your home, contact the Consumer Product Safety Commission at (800) 638-2772. For a more detailed discussion on PFAS, please visit <http://bit.ly/3Z5AMm8>.