2019 Davie County
Drinking Water Quality Report
Public Water System ID # NC0230015
Report Date - May 2020

To Our Customers,

We are pleased to provide this overview of your 2019 water quality, including details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. On the enclosed chart, you will see that the Davie County Water System had no violations in 2019.

This report is available on the Davie County website at: https://www.daviecountync.gov/DocumentCenter/View/9775/Consumer-Confidence-Report-PDF or *in written form at the Davie County Public Utilities Office. You can obtain a copy either by calling the contact number below during normal business hours or by writing us at 298 Depot Street, Suite 200, Mocksville, NC 27028. If you have any questions about the report or your water utility, you may contact us at 336-753-6090. Also, you can learn more by attending our regularly scheduled County Commissioners meetings held at the Davie County Administration Building, 123 South Main Street in Mocksville at 6:00 p.m. on the first Monday of each month.*

The Davie County Water System is a valuable asset to our county, and all citizens can help protect the system and infrastructure. We need you to join us in safeguarding these valuable resources by informing us of any suspicious activities around our water sources, treatment plants, water storage tanks, manholes or fire hydrants by calling either 336-753-6090 during normal business hours or 336-751-0896 after hours.

We are proud of our excellent water system and committed to ensuring the safety of your water.

Sincerely,
Johnny Lambert
Director of Public Utilities

Sparks Road Water Treatment Plant and Clearwell

REGULATED CONTAMINANTS

Disinfection Byproduct Precursors and Turbidity 2019

Contaminant	Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Total Organic Carbon [TOC] Removal Ratio – Treated Water*	N	0.29 AV – C 0.0–1.17 R – C 0.87 AV – S 0-1.29 R – S	N/A	TT	Naturally present in the environment
* The Cooleemee and Sparks Road Water Plants both had acceptable removal of TOC (Disinfection By–Product Precursors). Depending on the Total Organic Carbon in our source water, the water system must have a certain percent removal of TOC or must meet alternative compliance criteria.					
Turbidity (NTU)*	N	0.140– C** 0.315 – S**	N/A	TT ≤ 0.30	Soil runoff
		99.9 % – C*** 98.8 % – S***		TT = % Samples ≤ 0.15	
*Turbidity is a measure of cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. **These measurements were the highest single measurements detected in 2019at the Cooleemee and Sparks Road Water Plants. ***The Turbidity Rule requires that 95% or more of all the monthly samples must be less than or equal to 0.15 NTU.					

Disinfection and Disinfection Byproduct Contaminants 2019

Contaminant	Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Chlorine (ppm) (Tested monthly)	N	1.92 AV – D 0.55– 2.60 R – D	MRDLG = 4	MRDL = 4	Water additive used to control microbes
Total Haloacetic Acids [HAA5] (ppb) (Quarterly)	N	20.3 LRAA – D 11.0 – 29.0 R – D	N/A	60	By-product of drinking water chlorination
Total Trihalomethanes [TTHM] (ppb) (Quarterly)	N	23.6 LRAA – D 10.0 – 46.0 R – D	N/A	80	By-product of drinking water chlorination

Synthetic Organic Contaminants 2019

Contaminant	Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Simazine (ppm)	N	0.18 – C	4.0	4.0	Runoff from herbicide used on row crops

Inorganic Contaminants 2019 or Most Recent Analysis

Contaminant	Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Fluoride (ppm) (Tested 1/22/2016)	N	0.55 – C 0.55 – S	4	4	Erosion of natural deposits; from fertilizer & aluminum factories water additive to promote strong teeth;
Nitrate (ppm)(as Nitrogen) (2/2/2016)	N	1.44 – C <1.00 – S	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Copper (ppm)* - 90th percentile (Tested from 9/4/2018 - 9/18/2018)	N	0.12 – D	1.3	AL = 1.3 or TT	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)* - 90th percentile (Tested 9/4/2018 - 9/18/2018)	N	< 2.5– D	0	AL = 15 or TT	Corrosion of household plumbing systems; erosion of natural deposits
*The levels detected are the 90th percentile value of all samples taken. None of the water samples from the tested homes were above the Action Limits for Copper or Lead during this testing period.					

Cooleemee Plant - C Sparks Road Plant - S Water Distribution System - D
Average - AV Range - R Locational Running Annual Average – LRAA

About Drinking Water

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the land or through the ground, it dissolves naturally-occurring minerals and possibly radioactive materials. It can also pick up microbial contaminants, such as viruses and bacteria from the presence of animals or human activity. Inorganic contaminants, such as salts and metals, can be naturally-occurring or result from urban storm water runoff or from human activities such as farming. Pesticides and herbicides 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, are by-products of industrial processes and petroleum production. Radioactive contaminants are naturally-occurring or the result of oil and gas production and mining activities.

To ensure that your tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations, which 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.

About Your 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 Safe Drinking Water Hotline (800-426-4791).

All of our water originates as surface water in the Yadkin/Pee Dee River Basin. Davie County operates two water treatment plants, one on Sparks Road that processes water from the Yadkin River, and another in Cooleemee that treats water from the South Yadkin River. The Davie County Water System serves a population of approximately 25,200 people. The purpose of the water treatment process is to remove harmful contaminants, such as chemicals or bacteria, which may exist in the raw water supply. We test the water daily to ensure it is safe when it reaches our customers.

We have learned through our monitoring and testing that some constituents have been detected. To comply with the Federal and State regulations, the Davie County Water System routinely monitors for over 150 contaminants. The table lists the Regulated Contaminants our monitoring detected during the period of January 1st to December 31st, 2019 and the most recent results of detected contaminants not due to be tested in 2019. In the table, there are many terms and abbreviations you might not recognize. To help you understand these terms, we've provided definitions on the next page.

Important Health Information

No lead was detected in the samples we tested in 2018. 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 Davie County Water System 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 www.epa.gov/safewater/lead.

Cryptosporidium is a microbial parasite found in surface waters throughout the U.S. Cryptosporidium must be ingested for it to cause disease and can be contracted in other ways than by drinking water. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Immuno–compromised individuals can seek additional guidance at http://www.epa.gov/safewater/consumer/pdf/crypto.pdf and are encouraged to consult their doctor regarding appropriate precautions to prevent waterborne infection.

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).

Definitions

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

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 contamination.

Nephelometric Turbidity Unit (NTU) - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity more than 5 NTU is just noticeable to the average person.

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

Not Applicable (N/A) - Information not applicable/not required for that particular water system or for that particular methodology used.

Parts per billion (ppb) - One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Parts per million (ppm) - One part per million corresponds to one minute in two years or a single penny in $10,000.

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

Source Water Assessment Program (SWAP)

The North Carolina Department of Environment and Natural Resources Public Water Supply Section conducted assessments for all drinking water sources across the state. The purpose of the Source Water Assessment Program is to determine the susceptibility of the surface water intakes 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. 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.

The relative Susceptibility Rating of the drinking water source for the Davie County Water System was determined by combining the number and location of PCSs within the assessment area (Contaminant Rating) and the inherent characteristics or existing conditions of the watershed and its delineated assessment area (Inherent Vulnerability Rating). The assessment findings are summarized in the table below:

Davie County Water System SWAP Results Summary

Source Name	Inherent Vulnerability Rating	Contaminant Rating	Susceptibility Rating	SWAP Report Date
SOUTH YADKIN RIVER	Higher	Lower	Moderate	September 8, 2017
YADKIN RIVER	Higher	Moderate	Higher	September 8, 2017
SOUTH YADKIN RIVER	Higher	Lower	Moderate	September 8, 2017

The complete SWAP Assessment report for the Davie County Water System may be viewed on the Web at https://www.ncwater.org/?page=600. Please note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this web site may differ from the results that were available at the time this CCR was prepared. To obtain a printed copy of this report, mail a written request to: Source Water Assessment Program - Report Request, 1634 Mail Service Center, Raleigh, NC 27699-1634 or email your request to swap@ncdenr.gov. Indicate your system's name, Public Water System ID, 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.