

ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2019



Presented By DavidsonWater
INCORPORATED



Working Hard For You

I am pleased to report to the membership that Davidson Water, Inc. has 63,057 total connections and 56,548 active meters. That is an increase of 971 active connections from the prior year. Currently, we have 76 full-time employees and 3 part-time employees.

Water Treatment Plant and Water Quality – Highlights of 2019

- Average Flow=10.208 million gallons/day (MGD)
- Peak Flow=15.238 MGD
- UCMR4 (*Unregulated Contaminant Monitoring Rule - 4th round*), first phase of testing completed. UCMR4 is monitoring required by the EPA every five years for unregulated contaminants. The EPA uses this data in determining future regulations.
- Completed Lead & Copper testing (over 50 samples, every 3 years) with no lead detection
- Completed design of bleach system for construction
- Began renovation/repairs of C.O. Pickle Plant
- Sponsored an Intern from Yadkin Valley Academy
- Won the Patriotic Employer Award from the U.S. DoD for supporting our employee, Chris Lynn, during his deployment in the U.S. Air Force Reserves

Our distribution system saw line upgrades, line extensions, and pipe relocation of 13.04 miles. Over 40 active projects including upgraded replacement pipe for Robbins Country Road, 24" on Michael Road from Old Salisbury to Hwy 150, 16" on Hwy 150 from Lamb Road to West Davidson tanks, 6" line on George Murphy Road, DOT bridge relocations, business fire lines, and numerous subdivisions. Hwy 109 Pump Station in Thomasville is permitted and will begin construction soon. This pump station upgrade, along with the associated 40,600 lf of 16" transmission lines on Holly Grove Road to Tower Road, will replace some troublesome lines as well as provide future water for growth to the eastern end of Davidson County and Randolph County.

Our meter department installed 1,429 radio read meters, bringing the total number in our system to 51,696. We plan to have all meters replaced with AMR (Automatic Meter Read) technology in the next two years.

Customer Service and IT – The trend of online activity continues to increase. We sent just over 670,000 bills to our customers, with nearly 125,000 of those bills being emailed as opposed to being mailed through the USPS. This brings the percentage of emailed bills for

this past year to 18.5%, which is a substantial increase over the previous ratio of 13.5%. On the payment side, roughly half of all payments being made utilize some form of electronic payment, with around 25% of all customer payments coming through our Web site.

This past fall, we upgraded our servers and storage array with additional disk space and memory to better provide for expansion and future storage needs. Since fault tolerance and redundancy play huge roles in our server environment, we were able to upgrade our existing hardware while all customer and employee operations continued normally without interruption.

Our Employee Portal has become a focal point for our employees' needs. We just completed our most recent insurance renewals using the Portal, after updating the information with our current insurance options. There have been numerous improvements, all of which are helping to improve employee access to information.

Employee Giving & Community Outreach – Davidson Water employees have demonstrated an admirable need to give back to the community in more ways than one. Again, we set a record in employee giving in our annual United Way campaign, contributing \$9,521, up over 5%. Our annual Food Drive at Christmas is always a huge success. Our employees contributed \$500 in cash and 362 lbs. of food for Greater Things Outreach Center in Welcome. We partnered with Welcome Elementary School and contributed over \$867 in Christmas gifts to Angel Tree children.



Davidson Water annually awards four college scholarships in the amount of \$2,000 each to deserving high school seniors in memory of past board members. Last year, recipients were: Lucas Antinori, Lexington Senior High School; Leslie Miranda, East Davidson High School; Landon

Nobles, East Davidson High School; and Parker Shoaf, West Davidson High School.

Davidson Water also awarded four \$1,000 scholarships to students attending Davidson County Community College. Last year, recipients were: Ethan Collett, East Davidson High School; Holly Joyner, East Davidson High School; Robby Joyner, East Davidson High School; and Emily Moore, Central Davidson High School.

This past year, Davidson Water celebrated our 50th anniversary. At our Member Day last May, we hosted approximately 450 people at our Welcome office with food, games, and drawings. We also opened the Water

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Plant for tours. We partnered with Davidson County Schools and administered a coloring contest for all schools in Davidson County from grades K to 5th grade.

On our Web site, we've published a number of short videos that chronicle the 50-year impact Davidson Water has had on our community. Thank you for helping us celebrate the past 50 years, and we're excited about what the next 50 years will bring!

In closing, I want to emphasize our commitment to our mission of providing safe, reliable water to our members at the lowest possible cost. We will continue to do that with the leadership of our board and management, the expert guidance of our professional staff, the dedication and expertise of our employees, and the support of our members. Thank you for your support.

Ron Sink
General Manager

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Important Health Information

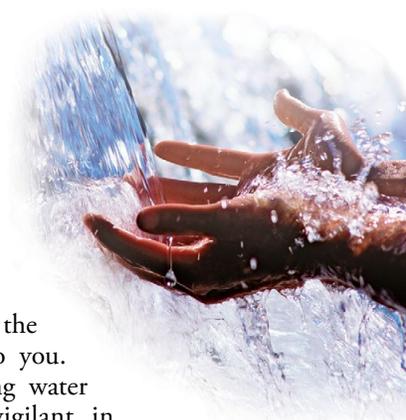
Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may 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>.



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, 2019. 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.



Annual Meeting

Davidson Water, Inc.'s annual meeting is held on the second Monday in March. A notice with a proxy statement is mailed prior to the meeting. The annual meeting this year was held on Monday, March 9, 2020, at 7:30 p.m. at the DCCC Rittling Conference Center. President Lee Comer presided. Reid Smith, Secretary, read the minutes from the 2019 meeting. Craig Adcock from Turlington & Company went over the financial statements and year-end audit. Mr. Adcock stated the company was in sound financial shape. Ron Sink, CEO, General Manager, reported on operations and maintenance of the water system along with capital improvements to the system.

The following people were elected to serve three-year terms on the Board of Directors of Davidson Water, Inc.:

- Sheila Potter Zone 2
- Lee Comer Zone 3
- Jason Hedgecock Zone 4
- Lee Ann Tuttle-Thomas At Large

Winston Salem Monitoring Violation

Winston Salem had a monitoring violation in 2019. To view the public notice and their 2019 CCR go to: cityofws.org/waterquality2019.

Where Does My Water Come From?

The Gregg W. Stabler Treatment Plant is located on Koontz Road near Highway 64 West, Lexington, NC. Our source water is the Yadkin River.

The Yadkin River begins in Blowing Rock, where it starts out as a small stream and follows along Highway 321 and then along State Road 268, deepening as other tributaries feed into the Yadkin. The Yadkin then feeds into the W. Kerr Scott Dam Reservoir. The W. Kerr Scott Dam is an earthen dam built in 1960 by the Army Corps of Engineers for flood control. The reservoir has 125 miles of shoreline that holds up to 112,000 acre-feet of water, or 36.5 billion gallons. (An acre-foot is one acre of water one foot deep, or 325,000 gallons.) A minimum flow must be released through the dam to keep a constant supply of water flowing down the Yadkin.



During 2019, Davidson Water, Inc., purchased water from the City of Winston-Salem and the City of Archdale to supplement peak usage or emergency needs. To obtain a Water Quality Report from the City of Winston-Salem or the City of Archdale, please contact them:

- City of Winston-Salem: (336) 727-8000
www.cityofws.org/waterquality2019
- City of Archdale: (336) 434-7364
www.archdale-nc.gov/wp-content/uploads/2012/04/2019-CCR-Annual-Drinking-Water-Quality-Report.pdf

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Brandon Garner, Water Plant Superintendent, or Craig Koontz, Assistant Water Plant Superintendent, at (336) 731-5584.

Source Water Assessment

The North Carolina Department of Environment and Natural Resources (DENR), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source (well or surface water intake) 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.

The relative susceptibility rating of each source was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area). 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 assessment findings are summarized in the table below:

SUSCEPTIBILITY OF WATER SOURCES TO POTENTIAL CONTAMINANT SOURCES (PCSs)

SOURCE NAME	SUSCEPTIBILITY RATING	SWAP REPORT DATE
Yadkin River	Higher	September 5, 2017

The complete SWAP Assessment report may be viewed on the Web at: <https://www.ncwater.org/?page=600>. 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. If you are unable to access your SWAP report on the Web, you may mail a written request for a printed copy to Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh, NC 27699-1634, or email requests to swap@ncdenr.gov. Please indicate your system name and number, 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.

During 2019, Davidson Water, Inc. purchased water from the City of Winston Salem and the City of Archdale to supplement peak usage or emergency needs. To obtain a Water Quality Report from the City of Winston Salem or the City of Archdale, please contact them:

- City of Winston-Salem: (336) 727-8000
www.cityofws.org/waterquality2019
- City of Archdale: (336) 434-7364
www.archdale-nc.gov/wp-content/uploads/2012/04/2019-CCR-Annual-Drinking-Water-Quality-Report.pdf



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 that 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.

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. We are 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 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

Water Treatment Process

The treatment process consists of a series of steps. First, raw water is drawn from our water source and sent through a series of three reservoirs to allow natural settling of silt and particulate matter. The water then goes to a mixing tank where ferric sulfate and pH adjusting chemicals are added. The addition of these substances causes small particles to adhere to one another (called "floc"), making them heavy enough to be removed from the water in a set of clarifiers. Chlorine is then added for disinfection. At this point, the water is filtered through layers of fine coal and silicate sand. As smaller, suspended particles are removed, turbidity disappears and clear water emerges.

Chlorine is added again as a precaution against any bacteria that may still be present. (We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste.) Seasonally, a portion of filtered water is processed through Granular Activated Carbon filters to polish the water, removing taste and odor-causing compounds, as well as reducing potential disinfection by-products. Finally, caustic soda (to adjust the final pH and alkalinity), fluoride (to prevent tooth decay), and a corrosion inhibitor (to protect distribution system pipes) are added before the water is pumped to clearwells, water towers, and into your home or business.



Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. Also, the water we deliver must meet specific health standards. Here, we show only 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 often 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]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine Dioxide (ppb)	2019	[800]	[800]	600	0.0–600	No	Water additive used to control microbes
Chlorine (ppm)	2019	[4]	[4]	3.2	1.7–3.2	No	Water additive used to control microbes
Chlorite (ppm)	2019	1	0.8	0.76	0.0–0.76	No	By-product of drinking water disinfection
Haloacetic Acids [HAAs] (ppb)	2019	60	NA	43	14–43	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2019	80	NA	59	12.0–59	No	By-product of drinking water disinfection
Total Organic Carbon [TOC] ¹ (ppm)	2019	TT	NA	2.1	0–2.1	No	Naturally present in the environment
Turbidity ² (NTU)	2019	TT = 1 NTU	NA	0.37	0.03–0.37	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2019	TT = 95% of samples meet the limit	NA	100	NA	No	Soil runoff

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

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2019	1.3	1.3	0.133	0/50	No	Corrosion of household plumbing systems; Erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Fluoride (ppm)	2019	2.0	NA	1.42	0–1.42	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
pH (Units)	2019	6.5–8.5	NA	7.6	6.6–7.6	No	Naturally occurring
Sulfate (ppm)	2019	250	NA	18	18–18	No	Runoff/leaching from natural deposits; Industrial wastes

UNREGULATED SUBSTANCES³

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Chlorate (ppb)	2015	110	86–110	NA
Chromium-6 (ppb)	2015	0.05	0.04–0.05	NA
HAA5 (ppb)	2018	34	13–34	Disinfection by-product
HAA9 (ppb)	2018	40	18–40	Disinfection by-product
Manganese (ppb)	2018	0.47	0–0.47	Naturally occurring
Sodium (ppm)	2019	2.61	- 2.61	NA
Strontium (ppb)	2015	47.9	46.8–47.9	NA
Total Organic Carbon [TOC] (ppm)	2019	1.981	1.123–1.981	Naturally occurring

¹ Depending on the TOC in our source water, the system MUST have a certain percentage removal of TOC or must achieve alternative compliance criteria. If we do not achieve that percentage removal, there is an alternative percentage removal. If we fail to meet the alternative percentage removal, we are in violation of a Treatment Technique.

² Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU.

³ Unregulated contaminants are those for which the U.S. EPA has not established drinking water standards. The purpose of monitoring unregulated contaminants is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.



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 that, if exceeded, triggers treatment or other requirements that a water system must follow.

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters under the Stage 2 Disinfectants and Disinfection By-products Rule.

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.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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).

removal ratio: A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

SMCL (Secondary Maximum Contaminant Level): These standards are developed to protect aesthetic qualities of drinking water and are not health based.

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

