

ANNUAL WATER QUALITY REPORT

Reporting Year 2021

Presented By



DavidsonWater
INCORPORATED

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

We've Come a Long Way

Once again, we are proud to present our annual water quality report covering the period between January 1 and December 31, 2021. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at all hours—to deliver the highest-quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff and our continued mission will be to provide safe, reliable water to our members at the lowest possible cost delivered to you and your family.

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 2021, 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 Consumer Confidence Report (Water Quality Report) from the City of Winston-Salem or the City of Archdale, please contact them:

City of Winston-Salem: (336) 727-8000

City of Archdale: (336) 434-7364

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 14, 2022, at 7:30 pm at Davidson Water, Inc. office in Welcome, NC. President Lee Comer presided. Ben Hege, Vice President, read the minutes from the 2020 meeting. Bob Biesecker from Turlington & Company went over the financial statements and year-end audit. Mr. Biesecker stated that 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.

- Kent Phillips District 1
- Chad Young District 2
- Theresa Matthews District 3
- Dow Craver District 4
- Jim Louya At Large

Benefits of Chlorination

Disinfection, a chemical process used to control disease-causing microorganisms by killing or inactivating them, is unquestionably the most important step in drinking water treatment. By far the most common method of disinfection in North America is chlorination.

Before communities began routinely treating drinking water with chlorine (starting with Chicago and Jersey City in 1908), cholera, typhoid fever, dysentery, and hepatitis A killed thousands of U.S. residents annually. Drinking water chlorination and filtration have helped to virtually eliminate these diseases in the U.S. Significant strides in public health are directly linked to the adoption of drinking water chlorination. In fact, the filtration of drinking water and the use of chlorine are probably the most significant public health advancements in human history.

How chlorination works:

- Potent Germicide Reduction in the level of many disease-causing microorganisms in drinking water to almost immeasurable levels.
- Taste and Odor Reduction of many disagreeable tastes and odors from foul-smelling algae secretions, sulfides, and decaying vegetation.
- Biological Growth Elimination of slime bacteria, molds, and algae that commonly grow in water supply reservoirs, on the walls of water mains, and in storage tanks.
- Chemical Removal of hydrogen sulfide (which has a rotten egg odor), ammonia, and other nitrogenous compounds that have unpleasant tastes and hinder disinfection. It also helps to remove iron and manganese from raw water.

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>.





BY THE NUMBERS

The number of Americans who receive water from a public water system.

300
MILLION

1
MILLION

The number of miles of drinking water distribution mains in the U.S.

The number of gallons of water produced daily by public water systems in the U.S.

34
BILLION

135
BILLION

The amount of money spent annually on maintaining the public water infrastructure in the U.S.

The number of active public water systems in the U.S.

151
THOUSAND

199
THOUSAND

The number of highly trained and licensed water professionals serving in the U.S.

The age in years of the world's oldest water, found in a mine at a depth of nearly two miles.

2
BILLION

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 <https://www.atsdr.cdc.gov/pfas/index.html>.

Tap vs. Bottled

Thanks in part to aggressive marketing, the bottled water industry has successfully convinced us all that water purchased in bottles is a healthier alternative to tap water. However, according to a four-year study conducted by the Natural Resources Defense Council (NRDC), bottled water is not necessarily cleaner or safer than most tap water. In fact, about 40 percent of bottled water is actually just tap water, according to government estimates.

The Food and Drug Administration (FDA) is responsible for regulating bottled water, but these rules allow for less rigorous testing and purity standards than those required by the U.S. EPA for community tap water. For instance, the high mineral content of some bottled waters makes them unsuitable for babies and young children. Furthermore, the FDA completely exempts bottled water that's packaged and sold within the same state, which accounts for about 70 percent of all bottled water sold in the United States.

People spend 10,000 times more per gallon for bottled water than they typically do for tap water. If you get your recommended eight glasses a day from bottled water, you could spend up to \$1,400 annually. The same amount of tap water would cost about 49 cents. Even if you installed a filter device on your tap, your annual expenditure would be far less than what you'd pay for bottled water.

For a detailed discussion on the NRDC study results, check out its Web site at <https://goo.gl/Jxb6xG>.

Additional Monitoring: Annual Meeting – Report on Operations of Davidson Water, Inc.,

March 14, 2022

Good evening. I want to introduce some of the management team that is with us tonight: Robert Walters, Vice President, Construction & Engineering; Alison Brinkley-Michael, CFO; Eric Hege, CIO; Danny Thompson, Civil Engineer; and Craig Koonts, Assistant Water Plant Superintendent. Also, Lisa Koonts with Human Resources and Susan Little, Office Manager.

I am pleased to report to the membership that Davidson Water, Inc. has 67,438 total connections and 58,517 active meters. That is an increase of 916 active taps from the prior year. Currently, the company has 80 full-time employees and 1 part-time employee. Last December, Davidson Water was awarded the Brad Leonard Memorial Business of Distinction Award presented by the Northern Davidson Chamber of Commerce.

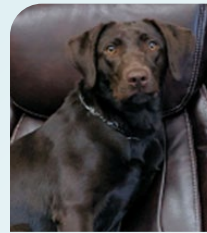
COVID-19 continued to dominate and consume our attention in our daily operations. Our priority has always been protecting our staff and our members. As essential workers, we enacted safety protocols to minimize direct contact and committed funding towards creating safe workstations, providing appropriate PPE, and implementing new standards for sanitation of our shared spaces. Though over half of our employees have been impacted in some way by COVID-19 within the past year, we were able to maintain operations to serve our members. We appreciate all of the effort employees have put forth to protect each other. Our lobby has been close since March of 2020. We hope to reopen soon.

Water Treatment Plant and Water Quality - Our average daily flow was 10.9 MGD (millions gallons per day), and peak flow was just under 17.5 MGD. Water quality remains our top priority, with all test results being well within EPA regulations. We are pleased to announce that in 2021 Davidson Water received the North Carolina AWOP (Area Wide Optimization Program) award given by NC Department of Environmental Quality. The program was developed to help water systems meet much more stringent regulations and achieve higher levels of water quality.

We have just about completed a \$3.3 million bleach conversion project. This project changes our disinfectant from chlorine gas to sodium hypochlorite (bleach). Not having large quantities of chlorine gas makes our plant much safer, and we have much less EPA air-quality regulations to meet, all without change in water quality.

Distribution - Our distribution system saw large line upgrades, line extensions, and pipe relocation of 13.3 miles of new line and 7.5 miles of line replacement pipe. We had over 23 new projects permitted and have approximately 66 active projects under or in the process of construction. We completed construction on the Tower Road Pump Station in Thomasville, NC. This pump station replaces the station that was constructed in 1982. We also began the replacement of the Hwy 52 Pump Station, constructed in 1969, located at Enterprise Road and Old Hwy 52 in Lexington. The new pump station along with the aforementioned large line work will provide water for future growth in the northern part of Davidson County. Other projects included business fire lines and numerous new subdivisions due to the recent housing boom.

Meter Services - Our meter department installed 1,980 radio read meters, bringing the total number in our system to 58,517. This work has completed a multiyear change-out program with all residential meters now using AMR (Automatic Meter Read) technology. We will be focusing this year on larger size meters with various technologies such as ultrasonic meters and cellular reading.



Our newest member of our meter department is Puddles, our leak-detection dog. Puddles is a beautiful two-year-old female chocolate lab who loves to find water leaks and play with her ball. She has been a hit with the public, and we hope to use her to represent Davidson Water in schools and public events.

Customer Service and IT - Over the past year, Davidson Water has made several improvements; the most notable of these was the implementation of a new work-order system. The new system gives us more flexibility moving forward when it comes to adding new work-order types, as well as allows us to record more precise information on work-orders we have currently established. In addition, we have added an additional staff member in the IT department to focus mainly on our new work-order application.

With our lobby being closed, the number of payments made via the Website have continued to climb at a steady pace. Just this past October, for the first time ever, we surpassed a total of 1,000 payments made in a single day using our Website.

As Davidson Water continues to experience several significant world events, we have continued to see an ever-present need to maintain vigilance regarding cyber activity. While these growing concerns have always been on our radar, rest assured that we continue to focus efforts towards improving cyber security as new concerns present themselves.

We began construction on the front parking lot, an additional drive-thru, and lobby renovation to improve customer service. We hope to be finished very soon.

Capital Credits - Last year, the Board of Directors approved the retirement of \$408,000.00 in capital credits. Capital Credits are excess margins (or profits) created by non-profit companies. We distributed that money to members who received service in 1989.

Employee Giving & Community Outreach – Davidson Water employees have demonstrated an admirable need to give back to the community in more ways than one. This year our annual United Way campaign contributions totaled \$6895.00. Our annual Food Drive at Christmas is always a huge success. This year, employees contributed \$945 in cash and 81 lbs. of food for Greater Things Outreach Center in Welcome. We also contributed over \$2,064 in Christmas gifts to Angel Tree children.

Scholarships - Davidson Water annually awards four college scholarships in the amount of \$2,000.00 each to deserving high school seniors in memory of past board members. Last year's recipients were: Isabel Cribbs, Wheatmore High School; Jacob Phelps, West Davidson High School; Logan Rogers, Wheatmore High School; and Allison Wray, East Davidson High School.

Davidson Water also awarded four \$1,000.00 scholarships to students attending Davidson County Community College. Last year's recipients were: MacKenzie Marsh, East Davidson High School; Madison Miller, East Davidson High School; Emily Nifong, Oak Grove High School; and Savannah Routh, Oak Grove High School.

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 partners, the dedication and expertise of our employees, and the support of our members. Thank you.

Respectfully submitted,

Ron Sink

Meet Our Leak Detection Dog



In 2019, we began our search for the best four-legged candidate to be our first Leak Detection Dog. Puddles and her handler, Meter Services Technician Sean Griffin, have been training together for many months and are now actively searching out customer leaks. In the coming months, we hope Puddles will have a chance to make local appearances and show our community how she brings value to our team and furthers our

mission to provide high-quality service to our members.

Bleach Tank Gets Installed at Water Treatment Plant

Earlier this year, the Water Treatment Plant began construction to install Bleach Tanks and phase out the use of chlorine gas for disinfection. Using chlorine gas carries many dangers and risks, which result in increased liabilities. This conversion will result in a much safer environment for our employees and community.



The image shows one of two bulk tanks being placed by Omega Construction. Fiberglass reinforced plastic (FRP) tanks are less flexible and hold up well to bleach, making them a better choice for the chemical. The tanks are also resistant to UV light, giving them longer life. The tanks are anchored with bolts made of Hastelloy C, a product that stands up much better to corrosion than stainless steel. This project is now completed.

Maintenance & Distribution Projects

Maintenance & Distribution have been busy this year with multiple projects. To highlight a few:

- The Tower Road Pump Station replacement project has been completed. Much of this work, including design, has been done in house by our own talented and hard-working employees partnered with Charles R. Underwood, Inc., Sanford, NC.



- Work began in October on 15,000 feet of pipe along Old Highway 64 and Young Road near our pump station.
- Work is now complete on 20,000 feet of 16" pipe along Holly Grove Road. We have abandoned the old 8" and 6" pipe that has had leaks for more than 40 years.
- A contractor is laying a 12" replacement line along Turnpike Road in Randolph County.
- We started working on the Hwy 52 Pump Station replacement located at Enterprise Road and Old Hwy 52 in Lexington, NC. This project will take about one year to complete. The water line work near the site is complete.
- The Old Highway 109 pump station replacement is complete and in service. The old one has been torn down.

Renovation of the Front Parking Lot at Main Office

Thank you for your patience during our construction project and renovation of the front parking lot. Phase 1 of the project is complete with storm drainage, curb and gutter, and major grading all added to the employee parking lot. On September 20th, we closed the current drive-thru and begin using a temporary drive-thru collection station in order that Phase 2 of the front office demo could begin. Phase 2 will add a second permanent drive-thru, grade the property, and add an entry canopy. The final asphalt overlay and landscaping will complete the project. The goal is to have all outside construction completed by the summer of 2022 as we also complete renovations on the Customer Service lobby area.



QUESTIONS? For more information about this report, or for any questions relating to your drinking water, please call Craig Koonts, Assistant Water Plant Superintendent, at (336) 248-7691.

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. We are pleased to report that your drinking water meets or exceeds all federal and state requirements

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)	2021	[800]	[800]	340	0–340	No	Water additive used to control microbes
Chlorine (ppm)	2021	[4]	[4]	2.7	1.2–2.7	No	Water additive used to control microbes
Chlorite (ppm)	2021	1	0.8	0.52	0.0–0.52	No	By-product of drinking water disinfection
Haloacetic Acids [HAAs]–Stage 2 (ppb)	2021	60	NA	31	6–31	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2021	80	NA	66	9–66	No	By-product of drinking water disinfection
Total Organic Carbon [TOC]¹ (ppm)	2021	TT	NA	1.9	0–1.9	No	Naturally present in the environment
Turbidity² (NTU)	2021	TT = 1 NTU	NA	0.14	0.04–0.14	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2021	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)	2020	2.0	NA	0.4	0–0.4	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
pH (Units)	2021	6.5–8.5	NA	7.3	6.6–7.3	No	Naturally occurring

UNREGULATED SUBSTANCES³

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Sodium (ppm)	2021	13.6	13.6 - 13.6	Naturally occurring
Sulfate (ppm)	2021	18	18 - 18	Runoff/leaching from natural deposits; Industrial wastes

OTHER 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
HAA9 (ppb)	2018	40	18–40	Disinfection by-product
Manganese (ppb)	2018	0.47	0–0.47	Naturally occurring
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.

What Causes the Pink Stain on Bathroom Fixtures?

The reddish-pink color frequently noted in bathrooms on shower stalls, tubs, tile, toilets, sinks, and toothbrush holders, and on pets' water bowls is caused by the growth of the bacterium *Serratia marcescens*. *Serratia* is commonly isolated from soil, water, plants, insects, and vertebrates (including humans). The bacteria can be introduced into the house through any of the above-mentioned sources. The bathroom provides a perfect environment (moist and warm) for bacteria to thrive.

The best solution to this problem is to clean and dry these surfaces to keep them free from bacteria. Chlorine-based compounds work best, but keep in mind that abrasive cleaners may scratch fixtures, making them more susceptible to bacterial growth. Chlorine bleach can be used periodically to disinfect the toilet and help eliminate the occurrence of the pink residue. Keeping bathtubs and sinks wiped down using a solution that contains chlorine will also help to minimize its occurrence. *Serratia* will not survive in chlorinated drinking water.

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.

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

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.

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.

Davidson Water Inc. has never installed lead pipe of any type or size.

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 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 9(19) 707-9098.

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.