

Presented By



DavidsonWater
INCORPORATED

ANNUAL
**WATER
QUALITY
REPORT**

WATER TESTING PERFORMED IN 2017



Annual Meeting — Report to the Membership *by Ron Sink, General Manager*

I am pleased to report to the membership that Davidson Water, Inc., has 61,471 total connections and 54,704 active meters. This is the highest increase in new taps since 2008. Currently, we have 72 full-time employees and 4 part-time employees.

Last year, we announced a new logo design for the company. We partnered with the DCCC Digital Image class to design and present a new updated logo. We picked one of the designs, tweaked it a little, and begin our rebranding with the new logo.

Water Treatment Plant and Water Quality

The Gregg Stabler Water Plant ran an average of 9.37 million gallons per day (mgd) with a maximum daily production of 12.73 mgd. This is slightly down from the prior year in spite of our being up in customers. The combination of low-flow fixtures and customer conservation is greatly contributing to this downward trend, which has been going on for the last ten years. We have maintained full compliance with all state-mandated tests. We partnered with North Carolina Rural Water Association and conducted a Physical/Chemical Grade I school in which one operator participated. Operational changes to our dechlorination process were kept in place from the previous year, allowing a savings of over \$25,000 annually. A substantial project underway is a 12-filter rehabilitation in the C.O. Pickle WTP. Rehab includes demo of existing filters, recoating pipe gallery infrastructure, and a new under-drain and air scour system. This project is budgeted at \$2.35 million and met "Substantial Completion" on February 9, 2018.

Our distribution system saw line upgrades, line extensions, and pipe relocation of 10.08 miles. The \$6.5 million Hyattown Pump Station was completed. This pump station is outfitted with new, more-efficient pumps, new electrical equipment, a larger generator for back-up power, and larger piping, with the room to add on more. We estimate this new station will carry us out to the year 2060. Also, we begin design work for a new pump station on Hargrave Road, along with a 24" transmission line from Tyro to the new pump station.

Our meter department installed 3,452 radio-read meters, bringing the total number in our system to 46,975. We plan to have all meters replaced with AMR (Automatic Meter Read) technology by the end of 2019. These meters are very accurate, have a 10-year warranty, and are the best value for the company to measure and bill for water.

Customer Service, Cybersecurity, and IT

Last year we continued to see an increase in online activity. We emailed 12% of our bills versus U.S. mail, and over 50% of our transactions are done electronically. We sent 775 emails to customers when their readings indicated an abnormally high consumption amount, to help alert them to a potential leak. To help alert those customers that were in danger of being cut off because of nonpayment, we sent 7,455 emails as a courtesy. This alert was in addition to



a statement printed on the water bill indicating that the customer is scheduled for disconnect. Also, we expanded more robo calls for outage notification.

We have implemented several significant server upgrades focused on email, Web, and databases, to meet and exceed the need for increased security standards. In the spring of 2017, we started utilizing a service called Perch. Perch monitors network traffic for malicious indicators, as well as provides us with indicators of potential threats seen by other organizations. We also have improvements underway that will enhance the features for the customer on our Web site, as well as provide an interface for our employees to access information regarding their employment.

About a year ago, we started including a coded link in the emailed bills that allows customers to pay their water bills directly without first needing to log into our Web site. This is the second year we have provided the option to submit proxies online. As a result, we have seen an increase over the previous year. This option is definitely improving our returned-proxies count over the mailing option we previously used.

For employees, we instituted a wellness program called Healthy 2 Options or H2O. Also, we implemented a new uniform program incorporating our new logo.

Employee Giving

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 over \$9,000. And our annual Food Drive at Christmas is always a huge success. Our employees contributed \$435 in cash and 795 lbs of food (doubling last year's effort) for Greater Things Outreach Center in Welcome. We partnered with local schools and First National Bank to contribute over \$790 in Christmas gifts to Angel Tree children. We also contributed \$1,024 to Samaritan's Purse.

Effective January 1, 2017, we instituted the Water Loss Protection Plan (WLPP) for our customers. This opt-out program gives a customer relief from an unanticipated high water bill in any given 24-month period of time. The charge for the protection program is .50 per month. The number of customers opting out of the program has been less than

continued from Annual Meeting

1/10th percent. Based on customer reviews and the revenue generated, we believe this program to be a huge success.

Davidson Water, Inc., annually awards four \$1,500.00 scholarships to deserving high school seniors in memory of past board members. Last year's recipients were Kelly Crisp, West Davidson High School; Kelsey Hoover, Ledford High School; Kyleigh Miller, North Davidson High School; and Ian Vickers, Wheatmore High School.

Our company is fortunate to have community stewards serve on our board of directors, one of whom is retiring from the board. I want to recognize Danny Fitzgerald for 34 years of service on the board. Danny has served as a Director since January, 1984.

In 2007, Danny was elected Vice President and continued in that office ever since. On the board, Danny has served as a calm voice, often interjecting wise comment, especially on construction and equipment matters. Danny, we thank you for your service. We will miss you.

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.

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 or at www.epa.gov/lead.



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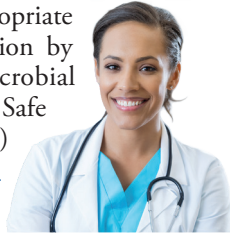
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QUESTIONS?

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

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>.



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 2017, 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

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 two months prior to the meeting. The annual meeting this year was adjourned to Monday, April 16 2018 at 7:30 pm, to be held at the DCCC Ritling Conference Center.

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.

Source Water Assessment

The North Carolina Department of Environment and Natural Resources, Public Water Supply Section, Source Water Assessment Program (SWAP) has assessed all water sources across North Carolina. The assessment determined the susceptibility of each drinking water source to potential contaminants.

It is important to understand that a susceptibility rating of high does not imply poor water quality. Susceptibility is an indication of a water supply's potential to be contaminated by the identified Potential Contaminant Sources (PCSs) within the assessment area.

The complete SWAP Assessment Report for Davidson Water, Inc., Public Water Source ID No. 0229025 may be viewed at <http://www.ncwater.org/?page=600>

The assessment finds are summarized in this table:

Source	Yadkin River
Inherent Vulnerability	High
Contaminant Rating	Moderate
Susceptibility Rating	High

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. The information in the data tables show only those substances that were detected between January 1 and December 31, 2017. Remember that detecting a substance does not necessarily 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.

We participated in the 3rd stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us for more information on this program.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2017	[4]	[4]	2.43	1.78–2.43	No	Water additive used to control microbes
Chlorite (ppm)	2017	1	0.8	0.22	0.03–0.22	No	By-product of drinking water disinfection
Haloacetic Acids [HAAs] (ppb)	2017	60	NA	44	30–44	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2017	80	NA	75	15–75	No	By-product of drinking water disinfection
Total Organic Carbon [TOC] ¹ (ppm)	2017	TT	NA	1.16	0–1.16	No	Naturally present in the environment
Turbidity ² (NTU)	2017	TT = 1 NTU	NA	0.110	0.043–0.110	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2017	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% TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2016	1.3	1.3	0.086	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)	2017	2.0	NA	1.06	0–1.06	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
pH (Units)	2017	6.5–8.5	NA	7.38	NA	No	Naturally occurring
Sulfate (ppm)	2017	250	NA	23	23–23	No	Runoff/leaching from natural deposits; Industrial wastes

UNREGULATED SUBSTANCES ³			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Sodium (ppm)	2017	18.4	NA

UNREGULATED CONTAMINANT MONITORING RULE - PART 3 (UCMR3) ³			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Chlorate (ppb)	2015	110	86–110
Chromium-6 (ppb)	2015	0.05	0.04–0.05
Strontium (ppb)	2015	47.9	46.8–47.9

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

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).

SMCL (Secondary Maximum Contaminant Level): SMCLs are established to regulate the aesthetics of drinking water like appearance, taste and odor.

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