We are proud that your drinking water meets or exceeds all Federal and State Requirements

Woodfin SWS District
P.O. Box 8452
Asheville, NC 28814

Woodfin Sanitary Water And Sewer District

Annual
Water Quality
Report

Calendar Year
2019

ANNUAL DRINKING WATER QUALITY REPORT
FOR THE WOODFIN SANITARY WATER AND SEWER DISTRICT
P.W.S.I.D. # 01-11-015

We are pleased to present you with our Annual Water Quality Report for the calendar year 2019. This report covers water treated from our 1,800 acre protected watershed and surface water reservoir located on the Sugar Camp Fork of Reems Creek at 439 Blackberry Inn Road, Weaverville, North Carolina.

Any questions concerning this report should be directed to Dr. Joseph Martin at 828-253-5551. Our elected board of trustees meets on the third Monday of each month at 1:00 P.M. at 122 Elkwood Avenue, Asheville, North Carolina 28804. Board trustees at the time of this printing are: Sarah Gassaway, Donald Haynes, and Ivo Ballentine.

As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. Water can also pick up substances resulting from the presence of animals or from human activity. Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. It is important to remember that the presence of these contaminants does not necessarily pose a health risk. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the **ENVIRONMENTAL PROTECTION AGENCY'S SAFE DRINKING WATER HOTLINE at 1-800-426-4791.**

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 microbiological contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

The North Carolina Department of Environmental 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 Contaminate 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 for "Woodfin Water District" was determined by combining the contaminant rating (number and location of PCS's 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.) The assessment findings are summarized in the table below:

Source Name	Inherent Vulnerability Rating	Contaminant Rating	Susceptibility Rating
Sugar Camp Fork	Lower	Lower	Lower

The complete SWAP Assessment report for "Woodfin Water District" 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 request to swap@ncdenr.gov. Please indicate your system name (Woodfin Water, PWSID # 01-11-015), 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.

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 following table shows results of our 2019 monitoring and the most recent monitoring done if we were not required to monitor in 2019. Of approximately 150 contaminants tested for, only 9 were detected in your drinking water.

Did you know?

Important Information About Your Drinking Water

- The District's watershed has the highest classification available in North Carolina. This means that the source water treated for our customer's use is recognized as the purest possible in its untreated form.

- Since 2004, the District has maintained the lowest water rates in Buncombe County, and the District now has some of the lowest water rates in all of North Carolina.

- The District serves nearly 9,000 customers in the Town of Woodfin, Town of Weaverville, City of Asheville, and areas of Buncombe County that are unincorporated.

- The District performs nearly all of the maintenance, repair and replacement of water mains and equipment with in-house personnel.

- Since 2004, the District has constructed more than $6 million in capital improvements, including water line upgrades, storage tank construction, and technology improvements.

- The District maintains certifications that allows for some in-house laboratory testing, ensuring your water always meets safety specifications.

- The District has a water rebate program that can provide credit on your bill for certain water-saving devices that you may install.

- More information on the District can always be found at www.woodfinwater.com.

TEST RESULTS

TURBIDITY—TESTED DAILY

Contaminant	Violation Y/N	Level Detected	Unit of Measurement	MCLG	MCL	Likely Source of Contaminant	Health Effect of Contaminant
Turbidity Highest Single Measurement	N	0.317 NTU	NTU	N/A	≥1.0 NTU	Soil runoff	See Note 1
Turbidity Lowest Monthly % of Samples Meeting Limits	N	99%	N/A	N/A	Less than 95% are ≤ 0.3 NTU	Soil runoff	See Note 1

LEAD AND COPPER CONTAMINANTS – TESTED JUNE, JULY, AND AUGUST 2018

Contaminant (units)	Sample Date	Level Detected	Number of sites found above the AL	MCLG	AL	Likely Source of Contaminant	Health Effect of Contaminant
LEAD (90th percentile)	Jun-Aug 2018	<0.003 mg/L	0	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits	See Note 2
COPPER (90th percentile)	Jun-Aug 2018	0.225 mg/L	0	1.3	AL=13	Corrosion of household plumbing systems; erosion of natural deposits.	See Note 3

MICROBIOLOGICAL CONTAMINANTS - TESTED MONTHLY

Contaminant	Violation Y/N	Level Detected	MCLG	MCL	Likely Source of Contaminant
Total Coliform Bacteria (presence or absence)	N	Absent	N/A	TT*	Naturally present in the environment
Fecal Coliform or E. Coli (presence or absence)	N	Absent	0	Routine and repeat samples are total coliform-positive and either is E. coli-positive or system fails to take repeat samples following E. coli-positive routine sample or system fails to analyze total coliform-positive repeat sample for E. coli. Note: If either an original routine sample and/or its repeat samples are E. coli positive, a Tier 1 violation exists.	Human or animal fecal waste

DISINFECTION BY-PRODUCTS – TESTED QUARTERLY 2019 (Chlorine Tested Monthly)

Contaminant	Violation Y/N	Level Detected	Unit of Measurement	MCLG	MCL	Likely Source of Contaminant	Health Effect of Contaminant
T.T.H.M. (Total Trihalomethanes)	N	37 (RAA) Range 21-37	ppb	0	80	By-product of drinking water chlorination	See Note 4
HAA5 haloacetic acids	N	39 (RAA) Range 27-39	ppb	0	60	By-product of drinking water chlorination	See Note 5
CHLORINE	N	Average 1.3 Range 1.3-2.2	ppm	N/A	4.0	Water additive used to control microbes	See Note 6

TOTAL ORGANIC CARBON – TESTED MONTHLY

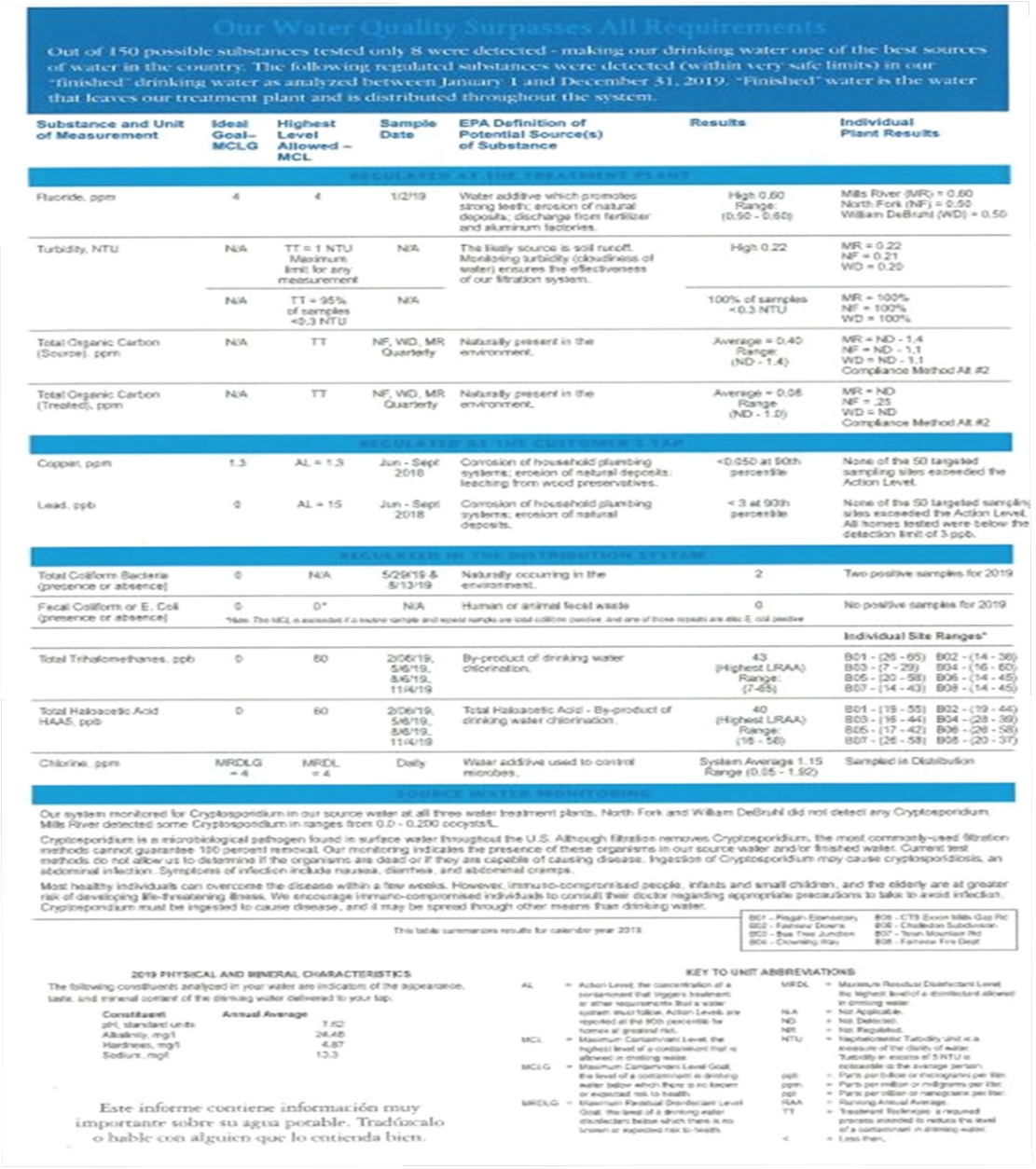
Contaminant	Violation Y/N	RAA Removal Ratio	Range Monthly Removal Ratio Low-High	MCLG	TT	Likely Source of Contaminant	Compliance Method
Total Organic Carbon (removal ratio) (TOC)-Treated	N	100%	100-100	N/A	TT	Naturally present in the environment	AH.2
Total Organic Carbon (removal ratio) (TOC)-Source	N	100%	100-100	N/A	TT	Naturally present in the environment	AH.2

NITRATE/NITRITE CONTAMINANTS

Contaminant	Sample Date	MCL Violation Y/N	Level Detected	Range Low/High	MCLG	MCL	Likely Source of Contaminant
Nitrate (as Nitrogen) (ppm)	2/4/19	N	<1.0	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

ASHEVILLE INFORMATION

Customers in the North/West Buncombe area and sometimes elsewhere during drought or emergency situations may receive water purchased from the City of Asheville. Following is a copy of the Consumer Confidence Report provided by the City of Asheville. The key to Unit Abbreviations for Asheville is the same as ours.



Our Water Quality Surpasses All Requirements

Out of 150 possible substances tested only 8 were detected - making our drinking water one of the best sources of water in the country. The following regulated substances were detected (within very safe limits) in our "finished" drinking water as analyzed between January 1 and December 31, 2019. "Finished" water is the water that leaves our treatment plant and is distributed throughout the system.

Substance and Unit of Measurement	Ideal Goal – MCLG	Highest Level Allowed – MCL	Sample Date	EPA Definition of Potential Source(s) of Substance	Results	Individual Plant Results
REGULATED AT THE TREATMENT PLANT						
Fluoride, ppm	4	4	1/2/19	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.	High 0.60 Range: (0.50 - 0.60)	Mills River (MR) = 0.60 North Fork (NF) = 0.50 William DeBruhl (WD) = 0.50
Turbidity, NTU	N/A	TT = 1 NTU Maximum limit for any measurement	N/A	The likely source is soil runoff. Monitoring turbidity (cloudiness of water) ensures the effectiveness of our filtration system.	High 0.22	MR = 0.22 NF = 0.21 WD = 0.20
	N/A	TT = 95% of samples <0.3 NTU	N/A		100% of samples <0.3 NTU	MR = 100% NF = 100% WD = 100%
Total Organic Carbon (Source), ppm	N/A	TT	NF, WD, MR Quarterly	Naturally present in the environment.	Average = 0.40 Range: (ND - 1.4)	MR = ND - 1.4 NF = ND - 1.1 WD = ND - 1.1 Compliance Method Alt #2
Total Organic Carbon (Treated), ppm	N/A	TT	NF, WD, MR Quarterly	Naturally present in the environment.	Average = 0.08 Range (ND - 1.0)	MR = ND NF = .25 WD = ND Compliance Method Alt #2
REGULATED AT THE CUSTOMER'S TAP						
Copper, ppm	1.3	AL = 1.3	Jun. - Sept 2018	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	<0.050 at 90th percentile	None of the 50 targeted sampling sites exceeded the Action Level.
Lead, ppb	0	AL = 15	Jun. - Sept 2018	Corrosion of household plumbing systems; erosion of natural deposits.	< 3 at 90th percentile	None of the 50 targeted sampling sites exceeded the Action Level. All homes tested were below the detection limit of 3 ppb.
REGULATED IN THE DISTRIBUTION SYSTEM						
Total Coliform Bacteria (presence or absence)	0	N/A	5/29/19 & 8/13/19	Naturally occurring in the environment.	2	Two positive samples for 2019
Fecal Coliform or E. Coli (presence or absence)	0	0*	N/A	Human or animal fecal waste	0	No positive samples for 2019
		*Note: The MCL is exceeded if a routine sample and repeat sample are total coliform positive, and one of those repeats are also E. coli positive				**Individual Site Ranges***
Total Trihalomethanes, ppb	0	80	2/26/19, 5/6/19, 8/6/19, 11/4/19	By-product of drinking water chlorination.	43 (Highest LRAA) Range: (7-65)	B01 - (26 - 65) B02 - (14 - 36) B03 - (7 - 29) B04 - (16 - 60) B05 - (20 - 58) B06 - (14 - 45) B07 - (14 - 43) B08 - (14 - 45)
Total Haloacetic Acid HAA5, ppb	0	60	2/26/19, 5/6/19, 8/6/19, 11/4/19	Total Haloacetic Acid - By-product of drinking water chlorination.	40 (Highest LRAA) Range: (16 - 58)	B01 - (19 - 55) B02 - (19 - 44) B03 - (16 - 44) B04 - (28 - 39) B05 - (17 - 42) B06 - (26 - 58) B07 - (26 - 58) B08 - (20 - 37)
Chlorine, ppm	MRDLG = 4	MRDL = 4	Daily	Water additive used to control microbes.	System Average 1.15 Range (0.05 - 1.92)	Sampled in Distribution

SOURCE WATER MONITORING

Our system monitored for Cryptosporidium in our source water at all three water treatment plants. North Fork and William DeBruhl did not detect any Cryptosporidium. Mills River detected some Cryptosporidium in ranges from 0.0 - 0.200 oocysts/L.

Cryptosporidium is a microbiological pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps.

Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through other means than drinking water.

This table summarizes results for calendar year 2019.

B01 - Reggie Edwards, B02 - Fairview Downs, B03 - Bee Tree Junction, B04 - Chowning Way, B05 - CTS Exxon Mills Gap Rd, B06 - Chalkedon Subdivision, B07 - Town Mountain Rd, B08 - Fairview Fire Dept

2019 PHYSICAL AND MINERAL CHARACTERISTICS

The following constituents analyzed in your water are indicators of the appearance, taste, and mineral content of the drinking water delivered to your tap.

Constituent	Annual Average
pH, standard units	7.62
Alkalinity, mg/l	24.48
Hardness, mg/l	4.87
Sodium, mg/l	13.3

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

KEY TO UNIT ABBREVIATIONS

AL = Action Level, the concentration of a contaminant that triggers treatment or other requirements that a water system must follow. Action Levels are reported at the 90th percentile for homes at greatest risk.
MCL = Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water.
MCLG = Maximum Contaminant Level Goal, the level of a contaminant in drinking water below which there is no known or expected risk to health.
MRDLG = Maximum Residual Disinfectant Level Goal, the level of a drinking water disinfectant below which there is no known or expected risk to health.
MRDL = Maximum Residual Disinfectant Level, the highest level of a disinfectant allowed in drinking water.
N/A = Not Applicable.
ND = Not Detected.
NR = Not Regulated.
NTU = Nephelometric Turbidity Unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is noticeable to the average person.
ppb = Parts per billion or micrograms per liter.
ppm = Parts per million or milligrams per liter.
ppt = Parts per trillion or nanograms per liter.
RAA = Running Annual Average.
TT = Treatment Technique: a required process intended to reduce the level of a contaminant in drinking water.
< = Less than.

Test Result Notes

Note 1: 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. Turbidity has no health effects. However, turbidity interferes with disinfection and provides a medium for microbial growth. Turbidity may indicate the presence of disease causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Note 2: Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning disabilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Woodfin Sanitary Water and Sewer District is responsible for providing high quality 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 http://www.epa.gov/safewater/lead.

Note 3: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short period of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

Note 4: Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Note 5: Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Note 6: Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.