

2020 Annual Drinking Water Quality Report

Town of Black Mountain

Water System Number: NC 01-11-020

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

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is a snapshot of last year's water quality. Included are details about your source(s) of water, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and to providing you with this information because informed customers are our best allies. . If you have any questions about this report or concerning your water, please contact the Black Mountain Public Services Department at 828-419-9300. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Town Council meetings. They are held at 6:00 PM on the second Monday of each month at Town Hall, 160 Midland Avenue, Black Mountain.

What EPA Wants You to Know

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Town of Black Mountain is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

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 and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants 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, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally-occurring or 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 can also come from gas stations, urban stormwater runoff, and septic systems; and radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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.

When You Turn on Your Tap, Consider the Source

The water that is used by this system is ground water from 12 wells (3 entry points) throughout the town. The town also uses surface water purchased from the City of Asheville.

Source Water Assessment Program (SWAP) Results

The North Carolina Department of Environmental Quality (DEQ), 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 for the Town of Black Mountain 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). The assessment findings are summarized in the table below:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating	SWAP Report Date
Well # 1	Lower	September 2020
Well 10	Lower	September 2020
Well 11	Lower	September 2020
Well 13	Lower	September 2020
Well 16	Lower	September 2020
Well 17	Lower	September 2020
Well 18	Lower	September 2020
Well 19	Lower	September 2020
Well 20	Lower	September 2020
Well 3	Lower	September 2020
Well 4	Lower	September 2020
Well 5	Lower	September 2020

The complete SWAP Assessment report for the Town of Black Mountain 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, 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.

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.

Help Protect Your Source Water

Protection of drinking water is everyone’s responsibility. You can help protect your community’s drinking water source(s) in several ways: examples: dispose of chemicals properly, take used motor oil to a recycling center, volunteer in your community to participate in group efforts to protect your source.

Violations that Your Water System Received for the Report Year

During 2020, or during any compliance period that ended in 2020, we received a *Monitoring* violation that covered the time period of 10/01/2019 – 12/31/2019. We have *changed our sampling procedures* to assure this does not happen again.

NOTICE TO THE PUBLIC

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Violation Awareness Date: 12/18/2019

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the compliance period specified in the table below, we [‘did not monitor or test’ or ‘did not complete all monitoring or testing’] for the contaminants listed and therefore cannot be sure of the quality of your drinking water during that time.

CONTAMINANT GROUP**	FACILITY ID NO./ SAMPLE POINT ID	COMPLIANCE PERIOD BEGIN DATE	NUMBER OF SAMPLES/ SAMPLING FREQUENCY	WHEN SAMPLES WERE TAKEN (Returned to Compliance)
TTHM – HAA5	D01	10/01/2019	2 / QUARTER	1/01/2020

(HAA5)- Haloacetic Acids - include Monochloroacetic Acid, Dichloroacetic Acid, Trichloroacetic Acid, Monobromoacetic Acid, Dibromoacetic Acid.

(TTHM) - Total Trihalomethanes - include Chloroform, Bromoform, Bromodichloromethane, and Dibromochloromethane.

What should I do? There is nothing you need to do at this time.

What is being done? We have changed our sampling procedures.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For more information about this violation, please contact the responsible person listed in the first paragraph of this report.

Water Quality Data Tables of Detected Contaminants

We routinely monitor for over 150 contaminants in your drinking water according to Federal and State laws. The tables below list all the drinking water contaminants that we detected in the last round of sampling for each particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, (2020).** The EPA and the State allow us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Important Drinking Water Definitions:

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

Non-Detects (ND) - Laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used.

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

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

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

Million Fibers per Liter (MFL) - Million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

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

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

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

Maximum Residual Disinfection Level (MRDL) – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfection Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Locational Running Annual Average (LRAA) – 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 Byproducts Rule.

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - The 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.

Tables of Detected Contaminants

REVISED TOTAL COLIFORM RULE:

Microbiological Contaminants in the Distribution System

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

Inorganic Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Fluoride (ppm)	5/27/20	N	0.507 ppm	0.175	0.507 ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Lead and Copper Contaminants

Contaminant (units)	Sample Date	Your Water	Number of sites found above the AL	MCLG	AL	Likely Source of Contamination
Copper (ppm) (90 th percentile)	9/23-24/19	0.818 ppm	0	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90 th percentile)	9/23-24/19	7 ppb	0	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits

Disinfectant Residuals Summary

	Year Sampled	MRDL Violation Y/N	Your Water (highest RAA)	Range		MRDLG	MRDL	Likely Source of Contamination
				Low	High			
Chlorine (ppm)	2020	N	1.31 ppm	0.7	2.0 ppm	4	4.0	Water additive used to control microbes

Stage 2 Disinfection Byproduct Compliance - Based upon Locational Running Annual Average (LRAA)

Disinfection Byproduct	Year Sampled	MCL Violation Y/N	Your Water (highest LRAA)	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
TTHM (ppb)						N/A	80	Byproduct of drinking water disinfection
Location								
B01	2020	N	15 ppb	2	31 ppb	N/A	80	Byproduct of drinking water disinfection
B02	2020	N	1 ppb	ND	4 ppb	N/A	80	Byproduct of drinking water disinfection
HAA5 (ppb)						N/A	60	Byproduct of drinking water disinfection
Location								
B01	2020	N	23 ppb	ND	15 ppb	N/A	60	Byproduct of drinking water disinfection
B02	2020	N	1 ppb	ND	4 ppb	N/A	60	Byproduct of drinking water disinfection

For TTHM: *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.*

For HAA5: *Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.*

The PWS Section requires monitoring for other misc. contaminants, some for which the EPA has set national secondary drinking water standards (SMCLs) because they may cause cosmetic effects or aesthetic effects (such as taste, odor, and/or color) in drinking water. The contaminants with SMCLs normally do not have any health effects and normally do not affect the safety of your water.

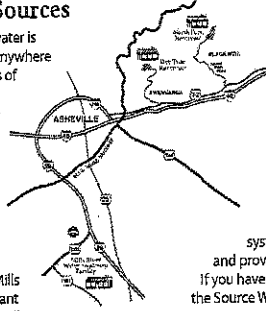
Other Miscellaneous Water Characteristics Contaminants

Contaminant (units)	Sample Date	Your Water	Range		SMCL
			Low	High	
Manganese (ppm)	5/27/20	0.024 ppm	ND	0.047 ppm	0.05 mg/L
Sodium (ppm)	5/27/20	6.8 ppm	3.49	10.19 ppm	N/A
pH	5/27/20	6.6	6.06	7.19	6.5 to 8.5

Quality Begins At Our Sources

It's very easy to see why our drinking water is considered some of the finest available anywhere in the United States. Our primary sources of water are located in eastern Buncombe County where the water flows from pure mountain springs and streams into lakes known as the North Fork and Bee Tree Reservoirs. They are located in Black Mountain and Swannanoa, respectively. These pristine lakes are surrounded by 20,000 acres of highly protected mountain forests owned by the City of Asheville.

Our secondary source of water is the Mills River. The Mills River Water Treatment Plant was put into operation in late 1999. The Mills River Watershed is very different from our watershed in the east; however, it still provides an excellent source of water. The watershed covers 47,440 acres in Henderson and Transylvania Counties, with approximately 75 percent of the watershed being in the Pisgah National Forest. It is a mixture of forest, farmland, and low density development. Although the Mills River is not pristine, it has the advantage of providing our region with a natural resource that has multiple uses, including being an invaluable drinking water source, trout fishery, fish and wildlife habitat, and recreational resource. During extreme drought conditions, water may be taken from the French Broad River.



It is important to understand that a susceptibility rating of Moderate or Higher does not imply poor water quality, only the systems' potential to become contaminated by PCS's in the assessment area. The complete SWAP Assessment report for the City of Asheville's Water Resources Department may be viewed on the Web at: <https://www.ncwater.org>. To obtain a printed copy of this report, please mail a written request to: Source Water Assessment Program - Report Request, 1634 Mail Center, Raleigh NC 27699-1634, or email request to swap@ncwater.org. Please indicate the system name (City of Asheville), PWSID (01-11-010), and provide your name, mailing address and phone number. If you have any questions about the SWAP report contact the Source Water Assessment staff by phone at 919-707-9098.

Susceptibility of Sources to Potential Contaminant Sources (PCSs)	
Source Name	Susceptibility Rating
North Fork Reservoir	Higher
Mills River	Moderate
Bee Tree Reservoir	Moderate
French Broad River*	Higher

(Found in SWAP Report Table 2, dated August 31, 2017)
*French Broad River Intake is only used during extreme drought conditions.

Source Water Assessment Program (SWAP) Results

North Carolina Department of Environmental Quality, Public Water Supply Section, Source Water Assessment Program (SWAP) conducted an assessment of the drinking water sources across North Carolina. The purpose of the assessment was to determine the susceptibility of each drinking water source 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 for the City of Asheville is determined by combining the contaminant rating (number and location of PCSs within the watershed) and the inherent vulnerability rating (geologic characteristics of the surface water source and the watershed area). The assessment findings are summarized in the following table.

We Optimize Quality With Careful Treatment

We are proud of the exceptional quality of water that flows through our system to your household or business daily. We treat it very carefully at our state-of-the-art water treatment plants to enhance its quality. The North Fork Water Treatment Plant built in 1978 and later expanded to a current capacity of 31 million gallons per day, or mgd, operates using a direct filtration process. Lake water from the pristine North Fork Reservoir is pre-chlorinated and mixed with aluminum sulfate to coagulate suspended particles that come from the lake. After mixing, the water flows through the filters, which remove coagulated particles. Following filtration, the pH is adjusted, fluoride is added for dental health purposes, corrosion inhibitors zinc ortho-phosphate and sodium bicarbonate are added, and the water is once again chlorinated for further disinfection.

The William DeBruhl Water Treatment Plant located at Bee Tree Lake operates using the same process as the North Fork Water Treatment Plant. The current capacity is five mgd.

The 7 mgd Mills River Water Treatment Plant was designed to produce drinking water that is comparable to the high quality water that comes from our North Fork Reservoir. The treatment process is more complex than at the North Fork facility; and it includes ozone treatment for disinfection. Water is taken from the Mills River and pumped first to an untreated water storage reservoir where suspended materials are settled out. The settled water is pumped to the pre-ozoneation system to begin disinfection; it flows to the rapid mixers where aluminum sulfate is added to coagulate suspended particles; the water then moves into settling basins where the heavy particles settle out and it travels back to the ozoneation system for further disinfection. The water then passes through filters containing granular activated carbon, the pH is adjusted, and fluoride is added. Finally, corrosion inhibitors and chlorine are added to enhance water quality in the distribution system.

After treatment, the water travels through over 1,702 miles of water lines and is stored in 35 reservoirs located throughout the distribution system. Each day, our water system delivers an average of 21.09 million gallons of water to over 124,000 people in Asheville, Buncombe County, and Henderson County. The rainfall total for 2020 was 74.40 inches; the highest month was August with 10.92 inches and the highest day was February 6th with 3.50 inches.

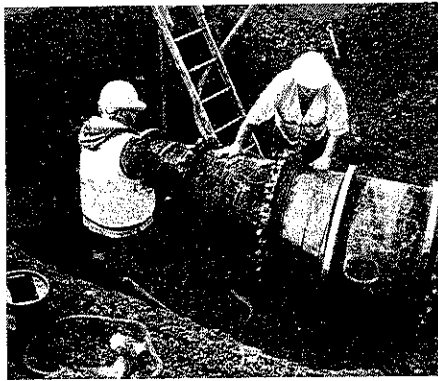
Regardless of the source of water or treatment facility processing the water, you can be sure that the product delivered to your tap surpasses all Safe Drinking Water Standards set by the EPA. The employees of the Water Resources Department are committed to treating your water with extraordinary care by perfectly blending science and nature. The result for you is the clear, pure water you receive at your tap.



Lead And Copper

The primary source of lead and copper in tap water is in a customer's home plumbing system. These elements can leach (dissolve) into the water from a building's plumbing through corrosion if the water has been standing in the pipes for several hours. To prevent corrosion from occurring, the City of Asheville has effectively implemented a system-wide corrosion control treatment. At the treatment plants, sodium hydroxide is added to increase the water's natural pH; sodium bicarbonate is added to increase alkalinity; and zinc ortho-phosphate is added as a corrosion inhibitor. This treatment minimizes corrosion of the pipes. Buildings at risk

(continued inside)

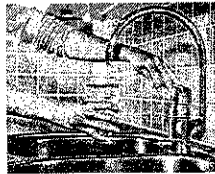


Our Commitment To Quality

We are pleased to present to you this year's Annual Drinking Water Quality Report for the City of Asheville's Water Resources Department. This report is a snapshot of last year's water quality. Congress and the EPA have mandated this report and to a large extent its format and content. The EPA wants to be sure every community knows what is in their drinking water. We agree. Water Quality is never taken for granted by our customers or by those of us who work everyday to ensure the best quality of water possible. Our charge is to present this information in a way that is understandable and gives you confidence in the quality of water supplied to your home or place of business.

This Annual Water Quality Report provides details about the quality of your water, where it comes from, how it is treated, and how you can conserve this precious resource. You may expect an update of this report each year.

The City of Asheville's Water Resources Department is required to test for over 150 constituents (substances) to make sure that the water you drink is safe. In 2020, only 8 of these substances were detected and they were well within safe levels - making our drinking water one of the best sources of water in the country. The table included with this report lists these 8 substances.



Customer Input Welcome

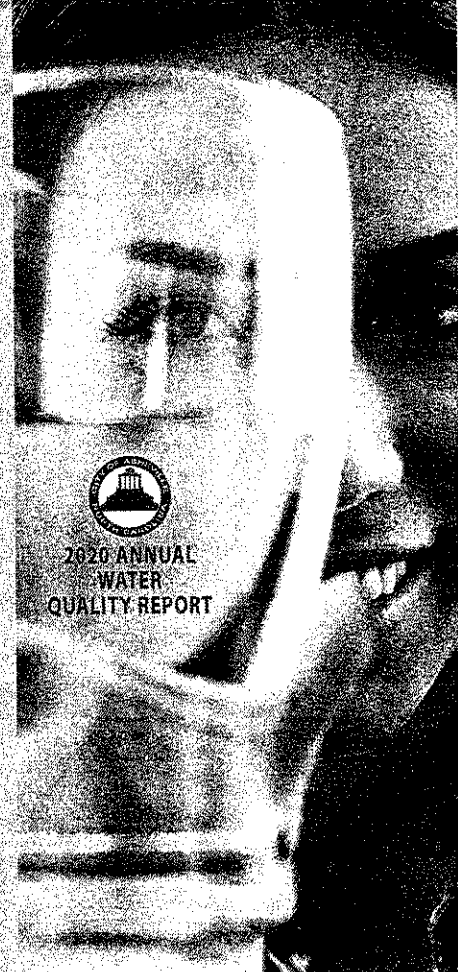
We invite our customers to learn more about the City of Asheville and the Water Resources Department. Customers are welcome to attend regular meetings of the Asheville City Council in the City Council Chamber located on the second floor of the City Hall Building at 70 Court Plaza. Meetings of Asheville's City Council are also televised live on the Asheville City Channel at the time of the meeting, typically the second and fourth Tuesday of each month at 5:00 p.m. The Asheville City Channel is on Charter Cable channel 193 and on AT&T U-Verse channel 99. The council meetings may be watched live: <https://publicinput.com/hub/88>. The public is invited to attend. On-Demand Recordings of current-year City Council meetings are available for viewing online at: <https://www.ashevilenc.gov/government/city-council-meeting-materials/>. The City of Asheville also posts City Council Meetings to our YouTube Channel at <https://www.youtube.com/user/CityofAsheville> for easier viewing. Questions regarding water quality, water bills, or any other questions can be answered by calling the City's Customer Services Division at (828) 251-1122. You can also explore our web page on the internet at <https://www.ashevilenc.gov/department/water/>

ISO 14001: Our Commitment to the Environment

Since 2004, the Water Resources Department has been ISO 14001 registered by NSF, proving that we have implemented practices and procedures to do our part to protect the environment. We are committed to ensuring environmental quality through:

- Continuous Improvement in our product, systems, and processes to maximize customer satisfaction;
- Communication among and between our staff, customers, vendors, contractors, and governing board;
- Compliance with relevant federal, state, and local environmental regulations; and
- Commitment to a clean, healthy environment through prevention of pollution.

The City of Asheville's Water Resources Department
PO Box 7148, Asheville, NC 28802
(828) 251-1122
Printed: February 26, 2021



En Español: Este informe contiene información sobre la calidad de su agua potable. Tradúzalo o hable con alguien que lo entienda bien.

for lead or copper in the water are those that have lead service lines or that have lead solder in copper pipes. Many homes built before 1986 were built with plumbing systems that contained lead solder in the copper pipes. The Water Resources Department was the first water utility in NC to start installing lead free brass fittings.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Asheville is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two 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 this website <http://www.epa.gov/safewater/lead>.

What EPA Wants You To Know

EPA requires us to inform you that some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons



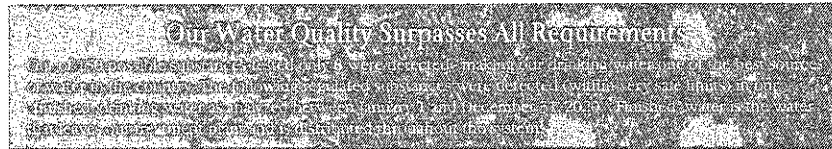
with cancer undergoing chemotherapy, persons who have under-gone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. EPA/CDC 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 800-426-4791.

The EPA also requires us to tell you that 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 and, in some cases, radioactive material, and may pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water before it is treated include microbial contaminants, inorganic contaminants, pesticides and herbicides, radioactive contaminants, and organic chemical contaminants. The City of Asheville has one of the purest sources of water in the country, thus minimizing any chance of contamination.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. It is important to remember that the presence of contaminants does not necessarily indicate that water poses a health risk. In order to ensure that your tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants. The Food & Drug Administration established limits for contaminants in bottled water which must provide the same level of protection. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 800-426-4791.



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 PLANT						
Fluoride, ppm	4	4	1/8/20, 1/7/20	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.	High 0.80 Range: (0.70 - 0.80)	Mills River (MR) = 0.80 North Fork (NF) = 0.70 William DeBruhl (WD) = 0.70
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 0.25	MR = 0.23 NF = 0.13 WD = 0.25
	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 = 0.19 Range: (ND - 1.2)	MR = ND - 1.2 NF = ND - 1.1 WD = ND - ND Compliance Method All #2
Total Organic Carbon (Treated), ppm	N/A	TT	NF, WD, MR Quarterly	Naturally present in the environment.	Average = ND Range (ND - ND)	MR = ND NF = ND WD = ND Compliance Method All #2
REGULATED AT THE CUSTOMER						
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 AT THE DISTRIBUTION SYSTEM						
Total Coliform Bacteria (presence or absence)	0	N/A	3/11/20, 6/10/20, 7/1/20, 8/4/20, 8/13/20, 10/2/20	Naturally occurring in the environment.	7	Seven positive samples for 2020
Fecal Coliform or E. Coli (presence or absence)	0	0*	N/A	Human or animal fecal waste	0	No positive samples for 2020
INDIVIDUAL SITE RANGES*						
Total Trihalomethanes, ppb	0	80	2/4/20, 5/4/20, 8/3/20, 11/3/20	By-product of drinking water chlorination.	48 (Highest LRAA) Range: (7-68)	B01 - (23 - 68) B02 - (14 - 46) B03 - (7 - 22) B04 - (28 - 60) B05 - (15 - 65) B06 - (18 - 39) B07 - (16 - 36) B08 - (12 - 57)
Total Haloacetic Acid HAA5, ppb	0	80	2/4/20, 5/4/20, 8/3/20, 11/3/20	Total Haloacetic Acid - By-product of drinking water chlorination.	44 (Highest LRAA) Range: (14 - 49)	B01 - (37 - 46) B02 - (23 - 48) B03 - (20 - 34) B04 - (38 - 40) B05 - (16 - 41) B06 - (31 - 42) B07 - (14 - 42) B08 - (14 - 44)
Chlorine, ppm	MCLG = 4	MDFL = 4	Daily	Water additive used to control microbes.	System Average 1.30 Range (0.25 - 2.10)	Sampled in Distribution

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.

KEY TO UNIT ABBREVIATIONS	
AL = Action Level, the concentration of a contaminant that triggers a warning or other requirements that a water system must follow. Action Levels are reported at the 90th percentile for homes at greatest risk.	MDFL = Maximum Residual Disinfectant Level: the highest level of a disinfectant allowed in drinking water.
MCL = Maximum Contaminant Level: the highest level of a contaminant that is allowed in drinking water.	N/A = Not Applicable.
MCLG = Maximum Contaminant Level Goal: the level of a contaminant in drinking water below which there is no known or expected risk to health.	ND = Not Detected.
MDFLG = Maximum Residual Disinfectant Level Goal: the level of a drinking water disinfectant below which there is no known or expected risk to health.	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.
	ppL = Parts per trillion or nanograms per liter.
	R/A = Running Annual Average.
	TT = Treatment Technique: a required process intended to reduce the level of a contaminant in drinking water.
	< = Less than.

2019 PHYSICAL AND MINERAL CHARACTERISTICS	
Constituent	Annual Average
pH, standard units	7.85
Alkalinity, mg/l	24.55
Hardness, mg/l	4.38
Sodium, mg/l	13.8

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	7.85
Alkalinity, mg/l	24.55
Hardness, mg/l	4.38
Sodium, mg/l	13.8

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

2020 Accomplishments & Achievements

- In September 2019 a new payment system, Utility Express Pay, was launched. This self serve system allows our customers the flexibility of multiple payment options including credit or debit cards, e-check, or bank draft. Customers can set their own payment date and sign up for recurring payments or paperless billing. Account billing and payment history is easily viewed by the customer. More than 17,000 customers now receive their utility bill electronically.
- Water Engineering has continued work with external consultants on final planning and design work for five new major water line replacement projects. This next round of projects will replace several miles of existing neighborhood water lines but will also include replacement of larger diameter (12 to 36-inch) transmission mains throughout the system. Construction of the first of these projects known as Neighborhood Enhancement Project Area 6 began in December of 2020 and consists of installation of approximately 12,100 LF of 6-inch, 5,000 LF of 8-inch, and 1,200 LF of 12-inch ductile iron water line in various areas of the water system.
- Construction of a new 36" by-pass line was completed. The by-pass line was designed in order to provide redundancy to the existing 24" and 36" transmission mains just downstream from North Fork WTP. This by-pass was needed to provide a back up transmission main around a section of the existing transmission mains that are highly susceptible to damage during flooding events.
- The Water Engineering Division has continued its work on the Fairview Water System improvement project which will add a new 0.5 million gallon water storage tank, one new booster pumping station, and four pressure reducing valves. The project was completed but a few minor issues requiring additional system pressure adjustments are to be made. These improvements will create a new pressure zone that will better fit the needs of the Fairview area, in terms of pressures and needed flows, while providing much needed relief from the Concord tank pressure zone.
- Water Production has several projects underway, including upgrades/rehabilitation of the Ozonia ozone system, pump Variable Frequency Drives and tanks at the Mills River plant. This project should be completed in 2021.
- SE Diving performed internal and external inspections of every storage tank.
- To ensure staff safety and the integrity of our electrical equipment, Water Production has hired a firm to conduct an ARC Flash assessment. Report to be completed in 2021.
- Water Production's Dam Embankment and Auxiliary Spillway Project has been completed and is fully functional.
- The Department continues to contract with industry experts Cavanaugh & Associates to assist in a systematic program to reduce non-revenue water. At the end of 2019, the percentage of water loss was 26.6%. The department was asked to present on this program at several national conferences this year.
- As part of its ongoing data quality improvement project, the GIS team began purchasing GPS units at the end of 2017. These units are now in use by staff in the field. Since their deployment, field staff have surveyed approximately 193,000 feet of waterline. In addition, GPS points have been captured for 4,200 meters, 192 Hydrants, and 637 valves.
- Operations began the process of implementing a new Virtual District Metered Area in east Asheville. Once in service, this project will help the department identify, locate, and resolve breaks and issues more quickly.
- Meter Services successfully replaced and updated 6 large meter vaults that were identified as either a safety hazard to employees or under performing due to inadequate conditions.
- Backflow-Cross/Connection control added 387 assemblies to our tracking system during the 2020 calendar year. These assemblies are located on high and moderate hazard accounts that are required to be tested annually by contractors to ensure safe, potable drinking water.