

Sources of Drinking Water

Town of Bakersville

2020 Water Quality Report

Bakersville "Gateway to Roan Mountain"



Bakersville's Drinking Water Source

The water that is used by this system is ground water from three wells: Linda Lane, The Reservoir, and Willis Cove. 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 the source for The Town of Bakersville 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 watershed and its delineated assessment area). The Town of Bakersville water sources were determined to have a susceptibility rating of **Moderate/Lower** according to the SWAP report released in September 2017.

The complete SWAP Assessment report for the Town of Bakersville may be viewed on the web at: www.ncwater.org/pws/swap. Please note that results available on the web site may differ from the results that were available at the time this water quality report was prepared. You may mail a request for a printed copy to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh N.C. 27699-1634 or email requests to swap@ncdenr.gov. Please indicate system name (Town of Bakersville), PWSID(01-61-015), and provide your name, mailing address and phone number. If you have 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 systems' potential to become contaminated by PCS's in the assessment area.

Town of Bakersville Public Water Utility meets or exceeds all Drinking Water Quality Standards

The Town of Bakersville utilizes a groundwater system treated with chlorine. An average of 2 million gallons of water is pumped monthly. The Town has met or exceeded all state and federal standards for drinking water quality for year 2020. This brochure includes details about where your drinking water comes from, how it is treated, what it contains, and exactly how it compares to state and federal standards. This report is updated on a regular basis and made available to our customers.



Town of Bakersville

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The sources of drinking water (both tap 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 storm water 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 come from gas stations, urban storm runoff, and septic systems.

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.

Drinking water, including bottled, 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.

Treated Water Quality

The following substances were detected in the Town of Bakersville public water supply during the 2017 calendar year, or the results are from the most recently required testing period.

Nitrate/Nitric Contaminants

Contaminant (units)	MCL Violation Y/N	Your Water	Range Low High	MCL/G	MCL	Likely Source of Contamination
Nitrate (as Nitrogen) (ppm)	N	ND	N/A	10	10	Runoff from fertilizer use, leading from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	N	ND	N/A	1	1	Runoff from fertilizer use, leaching from septic tanks, sewage; erosion of natural deposits

Unregulated Inorganic Contaminants

Contaminant (units)	Sample Date	Your Water	Range Low High	Secondary MCL
Sulfate (ppm)	8/6/2020	ND	8 31	250

Disinfectants and Disinfection Byproducts Contaminants

Disinfection Byproduct	MCL Violation Y/N	Your Water (highest RAA)	Range Low High	MCL/G	MCL	Likely Source of Contamination
THM1 (ppb)	N	ND	N/A	N/A	80	Byproduct of drinking water disinfection
HAA5 (ppb)	N	ND	N/A	N/A	60	Byproduct of drinking water disinfection
Bromate (ppb)				0	10	Byproduct of drinking water disinfection
Chlorate (ppm)				0.8	1	Byproduct of drinking water disinfection
Chlorine dioxide (ppb)				MRDLG=800		Water additive used to control microbes
Chloramines (ppm)				MRDLG=4	MRDL=4	Water additive used to control microbes
Chlorine (ppm)	N	0.49	0.23 0.81	MRDLG=4	MRDL=4	Water additive used to control microbes

Inorganic Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low High	MCL/G	MCL	Likely Source of Contamination
Fluoride (ppm)	8/6/2020	N	0.242	.13 - 1.70	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer.

Synthetic Organic Chemical Contaminants including pesticides and herbicides were tested for on 8/02/2016. None were detected.
 Volatile Organic Chemical Contaminants were tested for on 7/05/2016. None were detected.

Lead and Copper Contaminants

Contaminant (units)	Sample Date	Your Water	Number of sites found above the AL	MCL/G	AL	Likely Source of Contamination
Copper (ppm) (90th percentile)	7/10/2019	0.194	0	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead (ppb) (90th percentile)	7/10/2019	0	0	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits.

Radioisotopic Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	MCL	Likely Source of Contamination
Alpha emitters (pCi/l)	8/6/2020	N	ND	15	Erosion of natural deposits
Beta photon emitters (pCi/l)	8/6/2020	N	ND	50	Decay of natural and man-made deposits
Combined radium (pCi/l)	8/6/2020	N	1.75	5	Erosion of natural deposits
Uranium	8/6/2020	N	ND	20.1	Erosion of natural deposits

Water Characteristics Contaminants

Contaminant (units)	Sample Date	Your Water	Range Low High	SMCL
Iron (ppm)	8/6/2020	.31	.05-35	0.3
Manganese (ppm)	8/6/2020	.06	N/A	0.05
Nickel (ppm)	8/6/2020	ND	N/A	N/A
Sodium (ppm)	8/6/2020	7.5	N/A	N/A
pH	8/6/2020	7.63	N/A	6.5 to 8.5

Lead Exposure From Water

If present, elevated levels of lead in drinking water 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 Bakersville 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>.

Definitions:

ND – Not Detected
EPA – Environmental Protection Agency
(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.

ppb – One part per billion. (For example, one penny in \$10,000,000.)

ppm – One part per million. (For example, one penny in \$10,000.)
RAA, Running Annual Average – last four quarterly samples collected from the system.

pc/L, Pico-curies per liter – A measure of the radioactivity in water.
Action Level – The concentration of a contaminant that triggers treatment or other requirements that a water system must follow.

Extra Note: MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.