

# VILLAGE OF BARTLETT

## 2018 Annual Water-Quality Report

By law the Village of Bartlett must provide information to its residents regarding water quality. This is an annual report on the quality of water delivered in 2018 by the Village of Bartlett. The data is from 2018 unless otherwise noted. This report meets the federal Safe Drinking Water Act (SDWA) requirements for “Consumer Confidence Reports” and contains information on the source of Bartlett’s water, its constituents and the health risks associated with any contaminants. Safe water is vital to the community, and the Village tests and monitors its water quality on a continual basis. Please read this report carefully. If you have questions or would like information about the next opportunity for public participation in decisions about Bartlett’s drinking water, call the number listed at the end of this report, on page 14.

**The Village of Bartlett’s drinking water meets or surpasses all federal and state drinking water standards.**

### OVERVIEW

In 2018 the Village water system pumped 1,095,435,000 gallons to its consumers. Village treatment processes include chlorination for disinfection, fluoridation for dental care, filtration for iron removal and filtration for radium removal. Bartlett’s water is tested continuously by certified laboratories to ensure it meets drinking water standards set by the Illinois Environmental Protection Agency.

### WATER SOURCE

In March 2018, the Village started construction on the major infrastructure improvements needed to transition to 100% Lake Michigan water purchased through DuPage Water Commission. Bartlett’s full transition to Lake Michigan water was completed in May 2019.

Throughout 2018, the Village of Bartlett had two sources of water that were blended together in its distribution system. One source was the seven drilled wells located throughout town. The second source was water purchased from the City of Elgin. Elgin blends well water with water drawn from the Fox River, which is treated at its plant and pumped to Bartlett as a “finished” water.

The Illinois EPA has completed Source-Water Assessment for both Bartlett and Elgin water sources. They have determined that Bartlett’s source water is not susceptible to contamination. Since Elgin uses a surface water source, the Illinois EPA considers it susceptible to potential pollution problems. Therefore Elgin uses the mandatory treatment processes of coagulation, sedimentation, filtration and disinfection. Detailed copies of these assessments are available by calling Water Supervisor Tom Ruzicka, Village of Bartlett Public Works, 630-837-0811.

### AN EXPLANATION OF THE WATER-QUALITY DATA TABLE

The tables show the results of Bartlett’s and Elgin’s water-quality analyses. The data presented in this report is from the most recent testing done in accordance with regulations. Every regulated contaminant that the Village detects in the water, even in the most minute traces, is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the usual sources of such contamination, footnotes explaining Bartlett’s findings and a key to units of measurement.

**The definitions of MCL and MCLG are important.**

**Maximum Contaminant Level or 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 or 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.

**Action Level or AL:** The concentration of contaminant which, if exceeded, triggers treatment or other requirement that a water system must follow.

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

### KEY TO TABLE

NTU = Nephelometric Turbidity Units

mrem/year = millirems per year (a measure of radiation absorbed by the body)

pCi/L = picocuries per liter (a measure of radioactivity)

ppm = parts per million or milligrams per liter (mg/l)

ppb = parts per billion or micrograms per liter (ug/l)

# Bartlett Water

SUBSTANCE	DATE TESTED	UNIT	MCL	MCLG	HIGHEST DETECTED LEVEL	RANGE OF DETECTED LEVELS	MAJOR SOURCES	VIOLATION
<b>INORGANIC SUBSTANCES</b>								
Lead	2017	ppb	AL=15	0	9.93	2>AL	Corrosion of household plumbing systems; erosion of natural deposits	NO
Copper	2017	ppm	AL=1.3	1.3	0.183	0>AL	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	NO
Fluoride	2018	ppm	4	4	1.78	0.44-1.78	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer & aluminum factories	NO
Sodium	2018	ppm	n/a	n/a	45.8	21.0-45.8	Erosion of naturally occurring deposits; used as a water softener	NO
Manganese	2018	ppb	150	150	26.3	0-26.3	This contaminant is not currently regulated by the USEPA. However the state regulates. Erosion of natural deposits	NO
Barium	2018	ppm	2	2	0.114	0.0541-0.114	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	NO
Nitrate	2018	ppm	10	10	0.387	0-0.387	Runoff from fertilizer; leaching from septic tanks; erosion of natural deposits	NO
Nitrite	2018	ppm	1	1	0.064	0-0.064	Runoff from fertilizer; leaching from septic tanks; erosion of natural deposits	NO
<b>RADIOACTIVE SUBSTANCES</b>								
Radium 226, 228	2018	pCi/L	5	0	1.0	0-0.647	Erosion of natural deposits	NO
Gross Alpha	2017	pCi/L	15	0	3.0	1.49-3.0	Erosion of natural deposits	NO
<b>DISINFECTION BY-PRODUCTS</b>								
TTHMS (Total Trihalomethanes)	2018	ppb	*80	0	47.0	27.9-66.6	By-product of drinking water chlorination	NO
Total Haloacetic Acids	2018	ppb	*60	0	27.0	13.8-36.6	By-product of drinking water chlorination	NO
Chlorine	2018	ppm	4	4	1.0	0.7-0.9	Added for disinfection	NO

**Additional Table Footnotes. See bottom of Elgin Data table**

## Unregulated Contaminants

SUBSTANCE (units)	YEAR SAMPLED	AMOUNT DETECTED (average)	RANGE OF DETECTIONS (lowest - highest)	Typical Source
1, 4-Dioxane	2014	0.15	0.08-0.19	Cyclic aliphatic ether; used as a solvent or solvent stabilizer in manufacture & processing of paper, cotton, textile products, automotive coolant, cosmetics, & shampoos, cleaning agent, surface coating & adhesive agent
Chromium	2014	0.55	0.4-0.8	Naturally-occurring element; used in making steel & other alloys; used for chrome plating, dyes & pigments, leather tanning and wood preservation
Molybdenum	2014	1.77	1.3-1.9	Naturally-occurring element found in ores & present in plants, animals & bacteria; commonly used form molybdenum trioxide used as a chemical reagent
Strontium	2014	471.6	104.8-1555.9	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
Vanadium	2014	0.3	0.2-0.4	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate & a catalyst

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water & whether future regulation is warranted. A maximum contaminant level (MCL) for these substances has not been established by either state or federal regulations nor has mandatory health effects language.

# Elgin Water

SUBSTANCE	DATE TESTED	UNIT	MCL	MCLG	HIGHEST DETECTED LEVEL	RANGE OF DETECTED LEVELS	MAJOR SOURCES	VIOLATION
<b>MICROBIAL SUBSTANCES</b>								
Turbidity (% 0.3NTU)	2018	NTU	TT	n/a	100%	100%	Soil Runoff	NO
Turbidity (NTU)	2018	NTU	1NTU	n/a	0.24	n/a	Soil Runoff	NO
<b>INORGANIC SUBSTANCES</b>								
Barium	2018	ppm	2	2	0.0961	0.0961-0.0961	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	NO
Copper	2016	ppm	AL=1.3	1.3	0.1778	0>AL	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	NO
Fluoride	2018	ppm	4	4	0.8	0.78-0.78	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	NO
Arsenic	2018	ppb	10	0	1	0.633-0.633	Erosion of natural deposits; runoff from orchards; runoff from glass and electronic production wastes	NO
Nitrate	2018	ppm	10	10	1.0	0-0.843	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	NO
Lead	2016	ppb	AL=15	0	12.1	3>AL	Corrosion of household plumbing systems; erosion of natural deposits	NO
Sodium	2018	ppm	n/a	n/a	77.0	76.7-76.7	Erosion of naturally occurring deposits; used as a water softener	NO
<b>DISINFECTION BY-PRODUCTS</b>								
TTHMS (Total Trihalomethanes)	2018	ppb	*80	n/a	48.0	12.54-83.7	By-product of drinking water chlorination	NO
Total Haloacetic Acids	2018	ppb	*60	n/a	26.0	0.711-42.1	By-product of drinking water chlorination	NO
Chloramines	2018	ppm	4	4	2.90	2.0-3.0	Water additive used to control microbes	NO
<b>RADIOACTIVE SUBSTANCES</b>								
Radium 226, 228	2014	pCi/L	5	0	0.77	0-0.77	Erosion of natural deposits	NO
Gross Alpha	2014	pCi/L	15	0	0.77	0-0.77	Erosion of natural deposits	NO

## Water-Quality Table Footnotes

Turbidity:	Turbidity is a measure of the cloudiness of the water. It is a good indicator of water quality and the effectiveness of the filtration system and disinfectants.
Iron:	Iron is not federally regulated. The state has set an MCL of 1000 ppb. Excessive iron levels may cause staining of laundry and plumbing fixtures, but is not a health hazard.
Sodium:	There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If the level is greater than 20 ppm and you are on a sodium restricted diet, you should consult a physician. Some substances are not required to be sampled annually. In most cases the highest detected level is an average, and in some cases it is rounded up.

\*MCL Statement: The maximum contaminant level (MCL) for TTHM and HAA5 is 80 ppm and 60 ppm respectively and is currently only applicable to surface water supplies that serve 10,000 or more people. These MCLs became effective 01/01/2004 for supplies and surface supplies serving less than 10,000 people. Until 01/01/2004, surface water supplies serving less than 10,000 people, any size water supply that purchases from a surface water source, and groundwater supplies serving more than 10,000 were under a state imposed TTHM MCL of 100 ppm. Some people who drink water containing trihalomethanes in excess of the MCL over many years experience problems with their livers, kidneys or central nervous systems and may have an increased risk of getting cancer.

# ADDITIONAL HEALTH INFORMATION

To ensure that tap water is safe to drink, the USEPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water. Drinking water, including bottled water, may reasonably expect 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).

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 land or through the ground, it dissolves naturally occurring minerals and radioactive material and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in source water include:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- (C) Pesticides and herbicides, which may come from a variety of sources, such as agriculture, stormwater runoff, and residential uses.
- (D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- (E) 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, the USEPA 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. Some people may be more vulnerable to contaminants in drinking water than is 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 from their health care providers about drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline (800-426-4791).

## CONCERNING LEAD TESTING

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. Bartlett 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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

## OTHER MONITORING

In addition to the testing Bartlett is required to perform, the Village water system voluntarily tests for many additional substances and microscopic organisms to make certain its water is safe and of high quality. If you are interested in a more detailed report or have any additional questions, please contact Water Supervisor Tom Ruzicka, Village of Bartlett Public Works, 630-837-0811.



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