2023 Water Quality Report
for Boone Water Works

Information about your Drinking Water

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 EPAs Safe Drinking Water Hotline at (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. BOONE WATER WORKS 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.

Additional Health Information

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

EPA Safe Drinking Water Website
www.epa.gov/ground-water-and-drinking-water

AWWA Safe Drinking Water Website
www.drinktap.org

Contact Information

For questions regarding this information or how you can get involved in decisions regarding the water system, please contact Boone Water Works (515) 433-0536.

Source Water Assessment Information

Public Meeting Information

The City of Bone Council Meetings are held on the 1st & 3rd Monday of the month at City Hall which is located at:

City of Boone
923 8th Street
Boone, IA 50036
Or Call: (515) 432-4211

This water supply obtains its water from the sand and gravel of the Alluvial aquifer. The Alluvial aquifer was determined to be highly susceptible to contamination because the characteristics of the aquifer and overlying materials provide little protection from contamination at the land surface. The Alluvial wells will be highly susceptible to surface contaminants such as leaking underground storage tanks, contaminant spills, and excess fertilizer application. A detailed evaluation of your source water was completed by the Iowa Department of Natural Resources and is available from the Water Department via email at waterplant@city.boone.ia.us or by phone (515) 432-0536.

This water supply obtains water from one or more surface waters. Surface water sources are susceptible to sources of contamination within the drainage basin.

Surface Water Name	Susceptibility
Des Moines River	High

Other Information

Turbidity is an indicator of treatment filter performance and is regulated as a treatment technique.

This is your water quality report for PWSID 0819033.
Boone Water Works provides ground water from the Middle Des Moines River sand & gravel Alluvial Aquifer located in Boone County.

For more information regarding this report contact: USW Utility Group • (515) 432-0536

2023 Water Quality Test Results – City of Boone Water Works

This report contains important information regarding the water quality in our water system. The source of our water is groundwater under the influence of surface water. Our water quality testing shows the following results:

CONTAMINANT	MCL	MCLG	Compliance		Date	Violation	Sources of Contamination
			Type	Value & Range		Yes/No	
Total Trihalomethanes (ppb) [TTHM]	80	N/A	LRAA	71.00 (41 – 94)	09/30/2023	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) [HAA5]	60	N/A	LRAA	18.00 (12 – 22)	09/30/2023	No	By-products of drinking water disinfection
Lead (ppb)	AL=15	0	90th	2.10 (ND – 5)	2022	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	AL = 1.3	1.3	90th	0.0093 (ND – 0.0209)	2022	No	Corrosion of household plumbing systems; erosion of natural deposits; Leaching from wood preservatives
Total Organic Carbon (TOC) (% removal)	N/A	N/A	TT	12% - 38% removal	12/31/2023	No	Naturally present in the environment
950 – DISTRIBUTION SYSTEM							
Chlorine (ppm)	MRDL = 4.0	MRDLG = 4.0	RAA	1.3 (0.44 – 1.96)	12/31/2023	No	Water additive to control microbes
01 – WLS #12, 13, 16, 19-29 AFTER TREATMENT							
Fluoride (ppm)	4	4	SGL	1.10 (0.49 – 1.10)	12/31/2023	No	Water additive which promotes strong teeth; Erosion of natural deposits
Sodium (ppm)	N/A	N/A	SGL	30	09/18/2023	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [an N] (ppm)	10	10	SGL	3.8 (ND – 3.8)	2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Dalapon (ppb)	200	200	SGL	0.60	10/04/2021	No	Runoff from herbicide used on rights of ways
Turbidity (NTU)	N/A	N/A	TT	0.12 (0.02 – 0.12) 100% met limits	03/10/2023	No	Soil runoff
EPA UNREGULATED CONTAMINANT MONITORING RULE 5 (UCMR5)							
The City of Boone water system participated in the EPA UCMR5, which requires us to collect samples for Lithium and Per- and Polyfluoroalkyl Substances (PFAS). The results for Lithium were **11 – 58 (ug/L)** and PFAS was **ND**.							
Note: Contaminants with dates indicate results from the most recent testing done in accordance with regulations							

Definitions and Abbreviations

The following tables contain scientific terms and measures, some of which may require explanation.

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

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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.

Maximum Residual Disinfectant Level or 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 Disinfectant Level Goal or 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.

MFL: million fibers per liter (a measure of asbestos)

N/A: Not Applicable.

ND: Not Detected

NTU: Nephelometric Turbidity Units (a measure of turbidity)

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

ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

ppq: parts per quadrillion, or picograms per liter (pg/L)

ppt: parts per trillion, or nanograms per liter (ng/L)

RAA: Running Annual Average

RTCR: Revised Total Coliform Rule

SGL: Single Sample Result

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

ug/L or ppb: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

USW UTILITY GROUP