

# **2022 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. Immunocompromised 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  $1^{\rm st}$  &  $3^{\rm rd}$  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 lowa 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.

# 2022 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	
			Туре	Value & Range	Date	Yes/No		
Total Trihalomethanes (ppb) [TTHM]	80	N/A	LRAA	67.00 (52 - 84)	3/31/2022	No	By-products of drinking water chlorination	
Total Haloacetic Acids (ppb)[HAA5]	60	N/A	LRAA	17.00 (14 - 20)	09/30/2022	No	By-products of drinking water disinfection	
Total Haloacetic Acids (ppb)[HAA5]	60	N/A	LRAA	17.00 (13 - 20)	9/30/2022	No	By-products of drinking water disinfection	
Lead (ppb)	AL=15	0	90 <sup>th</sup>	2.10 (ND - 5)	2022	No	Corrosion of household plumbing systems; erosion of natural deposits	
Copper(ppm)	AL = 1.3	1.3	90 <sup>th</sup>	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	16% - 32% removal	12/31/2022	No	Naturally present in the environment	
950 - DISTRIBUTION SYSTEM								
Chlorine (ppm)	MRDL = 4.0	MRDLG = 4.0	RAA	1.3 (0.07 - 1.86)	12/31/2022	No	Water additive to control microbes	
Fluoride(ppm)	4		N/A	1.03 (0.40 - 1.03)	12/31/2022	No	Water additive which promotes strong teeth; Erosion of natural deposits	
01 - WLS #12, 13, 16, 19-29 AFTER TREATMENT								
Sodium(ppm)	N/A	N/A	SGL	16	07/12/2022	No	Erosion of natural deposits; Added to water during treatment process	
Nitrate [an N] (ppm)	10	10	SGL	5.8 (ND - 5.8)	2022	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	2.43 (0.03 - 2.43) 99% met limits	08/15/2022	*Yes	Soil runoff	

<sup>\*</sup>Turbidity (NTU): Violation was caused by filter carryover. The treatment process was adjusted to correct the issue.

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)

ppb: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of

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.