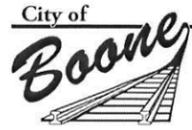


Source Water Assessment

Boone Water Works obtains its water from the Middle Des Moines River sand and gravel alluvial aquifer. The alluvial aquifer was determined to be highly susceptible to contamination because of the characteristics of the aquifer and overlying land surface. The alluvial wells are more susceptible to surface contaminants such as leaking storage tanks, contaminant spills, and excessive fertilizer applications. A detailed evaluation of your source water was completed by the Iowa Department of Natural Resources and is available from the Boone Water Works at 515-433-0536.



City of Boone Water Works

Water quality is our primary commitment at the City of Boone Water Works. We believe that the best way to assure you that your drinking water is safe is to provide you with accurate facts.

The information in this Consumer Confidence Report summarizes the results of our water monitoring program during 2020 as required by the Environmental Protection Agency (EPA). Many of the analyses are required by the Safe Drinking Water Act and other regulations. However, we monitor for contaminants above and beyond the basic requirements. If you have questions about the information in this report please contact us at (515) 433-0536.

The City of Boone Water Works is dedicated to providing you, the customer, with the safest and most dependable supply of drinking water available.



QUALITY TAP WATER



For more information on this Consumer Confidence Report or other water quality concerns, please contact:

City of Boone Water Works

Daniel Scott
923 8th Street, P.O. Box 550
Boone, Iowa 50036
Phone: (515) 432-4211
Fax: (515) 433-0630
E-mail: dscott@city.boone.ia.us



Public meeting information:

The Boone City Council meets at 6:00 p.m. the first and third Monday of each month at the Boone City Hall. Inquiries may be directed to the:

City of Boone

923 8th Street, P.O. Box 550
Boone, Iowa 50036
Phone: (515) 432-4211 ext. 1100 or Option 2
Fax (515) 433-0630

DRINKING WATER AND HEALTH INFORMATION FROM THE EPA

To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems.

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 from their health care providers about drinking water. The EPA and Centers for Disease Control 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).

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Many customers wish to know if bottled water is safer than regular tap water. The Food and Drug Administration (FDA) establishes limits for contaminants in bottled water that must provide the same protection for public health. Any bottled water labeled "drinking water" must meet EPA's drinking water regulations. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of a contaminant does not necessarily indicate that water poses a health risk.

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 www.epa.gov/safewater/lead.

More information about contaminants and potential health effects can be obtained by contacting the EPA's Safe Drinking Water Hotline.

**EPA Safe Drinking Water Hotline 1-800-426-4791 - <http://water.epa.gov/drink> - or
AWWA Safe Drinking Water Website - www.drinktap.org**

Cryptosporidium

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes it, the commonly-used filtration methods cannot guarantee 100% removal. Our monitoring indicates no presence of these organisms in our source water. We conducted supplemental monitoring as suggested in the Long Term 2 Enhanced Surface Water Treatment Rule (LT2) to determine if additional treatment is needed. The LT2 Rule builds on earlier rules to address the risk to public water systems for protection beyond current requirements. 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, immunocompromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immunocompromised 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 means other than drinking water. Boone has not had a Cryptosporidium detection.

2020 Water Quality Results - City of Boone Water Works

ANALYTE	MCLG	MCL	LEVEL DETECTED	RANGE OF DETECTION	VIOLATION YES/NO	YEAR SAMPLED	SOURCES OF CONTAMINANT
TREATED WATER							
Turbidity (NTU)	N/A	N/A	0.18	0.02 - 0.18 (100% met limits)	No	2020	Soil runoff
Fluoride (ppm)	4	4	0.87	0.59- .87	No	2020	Additive to promote strong teeth: discharge from fertilizer and aluminum factories; erosion of natural deposits
Nitrate [as N] (ppm)	10	10	5.2	0.3 - 5.2	No	2020	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Trihalomethane (ppb)	N/A	80	46 LRAA	28- 74	No	2020	Byproduct of treatment process
Total Haloacetic Acids (ppb)	N/A	60	11 LRAA	10 - 12	No	2020	Byproduct of treatment process
Sodium (ppm)	N/A	N/A	9.9	N/A	No	2020	Erosion of natural deposits; added to water during treatment process
DISTRIBUTION SYSTEM							
Chlorine (ppm)	MRDLG = 4	MRDL = 4	1.6 RAA	0.67 - 2.19	No	2020	Byproduct of drinking water disinfection
COPPER AND LEAD at Customer Tap							
Copper (ppm) (90th percentile)	1.3	AL = 1.3	0.0237	ND - 0.0757 (0 of 30 samples exceeded AL)	NO	2019	Corrosion of home plumbing; erosion of natural deposits
Lead (ppb) (90th percentile)	0	AL = 15	8.20	ND - 211 (3 of 30 samples exceeded AL)	NO	2019	Corrosion of home plumbing; erosion of natural deposits
SOURCE WATER							
Total Organic Carbon	15%		21- 42%		No	2020	Naturally present in the environment

NOTE: The EPA requires monitoring of over 80 drinking water contaminants. Those listed above are the only contaminants detected in your drinking water. For a complete list, contact the City of Boone Water Works.

UNREGULATED CONTAMINANTS

The U.S. Environmental Protection Agency required cities our size to take samples in 2019 and 2020 for an assessment monitoring program for the Unregulated Contaminant Monitoring Rule (UCMR). Detection levels were set at the parts per billion range (ppb). The EPA will review the findings of this nationwide assessment to determine if any new regulations are needed. The contaminants detected in our testing are listed below.

LOCATION	CONTAMINANT	HIGHEST DETECTED LEVEL	UTILITY RANGE
SOURCE ENTRY POINT	Manganese (ppb)	0.74	ND - 0.74
	Germanium (ppb)	0.56	ND - 0.56
DISTRIBUTION SYSTEM	HAA5 (ppb)	24.2	7.3 - 24.2
	HAA6Br (ppb)	8.8	4.4 - 8.8
	HAA9 (ppb)	29.6	12.39 - 29.6

Definitions

Action Level (AL) » The concentration of a contaminant that, if exceeded, triggers a treatment or other requirement that a water system must follow

Distribution System » The network of piping that delivers water from the treatment plant to customers. It is built and maintained to provide water with adequate quality, quantity, and pressure to meet customer needs.

LRAA » Locational Running Annual Average

Maximum Contaminant Level (MCL) » The highest level of a contaminant 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

Maximum Residual Disinfectant 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 Disinfectant 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.

N/A » Not applicable

ND » Not detected at testing limit

NTU » Nephelometric Turbidity Units

ppb » Parts of contaminant per billion parts of water. One part per billion (ppb) is equivalent to a single penny in ten million dollars.

ppm » Parts of contaminant per million parts of water. One part per million (ppm) is equivalent to a single penny in ten thousand dollars.

RAA » Running Annual Average

Source Entry Point » The point where water enters the distribution system after it has been treated by your water utility

TOC » Total organic carbon in untreated water

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

Additional Information



Chlorine Disinfectant » The most common drinking water treatment is disinfection. Disinfection is considered to be the primary mechanism to kill bacteria and other germs to prevent the spread of waterborne diseases. Chlorine is the most widely used disinfectant. Disinfectants combine with organic and inorganic matter present in water to form chemicals called disinfection byproducts. EPA sets standards for controlling the levels of disinfectants and disinfection byproducts in drinking water. The water quality chart in this report reflects these standards and the utility's ability to meet those standards.

Fluoride » Some fluoride is naturally present in the source water. The amount is carefully monitored every day so optimum concentration is maintained. If you have concerns about fluoride, you should discuss this topic with your dentist and doctor.

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