

# 2017 WATER QUALITY REPORT

## for the CITY OF ZEARING

The City of Zearing strives to provide you with a safe, dependable supply of drinking water that is in compliance with the guidelines established by the Environmental Protection Agency (EPA). This report contains important information regarding the water quality in our water system. The City of Zearing currently purchases its water through a bulk connection with Iowa Regional Utilities Association (IRUA). The Marshalltown Water Works supplies the water which is pumped from nine deep wells located on the north side of the Iowa River drawing from the Mississippian and Pleistocene Aquifers. Our water quality testing shows the following results:

Contaminant	MCL (MCLG)	Compliance		Year Tested	Violation	Source
		Type	Result (Range)			
<b>City of Zearing Distribution System</b>						
Copper (ppm)	AL=1.3 (1.3)	90 <sup>th</sup>	0.02 (ND - 0.04)	2017	No	Corrosion of plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead (ppb)	AL=15 (0)	90 <sup>th</sup>	1.00 (ND - 2)	2017	No	Corrosion of household plumbing systems; Erosion of natural deposits.
Chlorine (ppm)	MRDL=4.0 (MRDLG=4.0)	RAA	2.0 (1.86 - 2.2)	2017	No	Water additive used to control microbes.
<b>Water Supplied by Marshalltown Water Works</b>						
Fluoride (ppm)	4 (4)	RAA	0.7 (0.3 - 1.0)	2017	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories.
Sodium (ppm)	N/A (N/A)	SGL	14	2016	No	Erosion of natural deposits; Added to water during the treatment process.

### Third Unregulated Contaminant Monitoring Rule Results (UCMR3)

Our utility is committed to protecting public health and meets or surpasses all state and federal health standards for tap water. To help advance the science of drinking water, we have been collecting data for the EPA since the rule was enacted in January 2013. Collecting information about the occurrence of these compounds in water supplies is the first step in the EPA's efforts to determine whether they should be regulated. The presence of a compound does not necessarily equate to a health risk; the concentration of a compound is a far more important factor in determining whether there are health implications. We will closely monitor both the concentrations of these compounds and the EPA's health studies and will keep you informed of any developments. Should the EPA ultimately determine that regulation is warranted, we will take whatever steps are necessary to protect the health of our customers. Additional information about the Third Unregulated Contaminant Monitoring Rule can be found at [DrinkTap.org](http://DrinkTap.org).

Contaminant	Value	Range	Contaminant	Value	Range
Chlorate (ppb)	214	71-214	Strontium (ppb)	145	80.5-145
Chromium-6 (ppb)	0.299	0.102-0.299	Chromium (ppb)	0.300	ND-0.300
Molybdenum (ppb)	1.30	ND-1.30	1,4-DioNDane (ppb)	0.116	ND-0.116

The EPA requires monitoring of over 80 drinking water contaminants. Those listed above are the only contaminants detected in your drinking water. For questions regarding this information, please contact Kyle Chitty, City Superintendent at (515) 231-2216. Decisions regarding the water system are made at the Zearing City Council meetings, which are held on the second Monday of each month at 7:00 p.m. at the City Hall; 105 W Main St.; Zearing, IA and are open to the public.

### VIOLATIONS

In 2017, Zearing Water Department failed to provide the required notice of results to customers that participated in the city's lead and copper monitoring program. Ten samples were collected, and the results indicated that we were in compliance with the lead and copper standards, but we failed to notify the participating homeowners of their individual results.

### COLIFORM ASSESSMENT

In 2016, we were required to conduct one Level 1 Assessment to determine the cause of bacteria in our distribution system; however, the assessment was not completed until 2017. Corrective actions have been, or will be taken to address these issues.

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.

## DEFINITIONS

- Maximum Contaminant Level (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 (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.
- ppb – parts per billion.
- ppm – parts per million.
- N/A – Not applicable
- ND – Not detected
- RAA – Running Annual Average
- LRAA – Locational Running Annual Average
- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- 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.
- 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.
- RTCR – Revised Total Coliform Rule
- SGL – Single Sample Result
- TC – Total Coliform
- Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.

## GENERAL INFORMATION

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. Your water supply is monitored on a regular basis to assure the water is a safe, dependable supply. 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 posed a health risk. More information about contaminants or potential health effects can be obtained by calling the EPA's 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. The City of Zearing 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 drinking 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>.

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).

## SOURCE WATER ASSESSMENT INFORMATION

The Marshalltown Water Works obtains its source water from the Mississippian and Pleistocene aquifers. The Mississippian and Pleistocene aquifers were determined to be susceptible to contamination because the characteristics of the aquifers and overlying materials allow contaminants to move through the aquifers fairly quickly. The wells will be susceptible to activities such as leaking underground storage tanks, underground storage tanks, and hazardous waste generators. A detailed evaluation of your source water was completed by the IDNR, and is available from Iowa Regional Utilities Association at (641) 792-7011.

## OTHER INFORMATION

The City of Zearing is making every effort to protect the water system from potential security threats. You, as customers, can also help. If you see any suspicious activity near any part of the water system, please contact us at (641) 487-7477 or the local police/sheriff department. We appreciate your assistance in protecting the water system.