

2016 WATER QUALITY REPORT

for the CITY OF DIKE

The City of Dike 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. This report contains important information regarding the water quality in our water system. The City of Dike purchases its water through a bulk connection with Central Iowa Water Association (CIWA) and receives treated water from CIWA's treatment plant near Waverly. Results of water quality testing from our distribution system and from CIWA's treatment plant near Waverly are provided below.

Contaminant	MCL (MCLG)	Compliance		Year Tested	Violation Yes/No	Source
		Type	Result (Range)			
City of Dike Distribution System						
Copper (ppm)	AL=1.3 (1.3)	90th	0.493 (0.0429 – 0.643)	2014	No	Corrosion of plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead (ppb)	AL=15 (0)	90th	1.93 (ND – 2)	2014	No	Corrosion of household plumbing systems; erosion of natural deposits.
Chlorine (ppm)	MRDL=4.0 (MRDLG=4.0)	RAA	2.2 (1.82 – 2.56)	2016	No	Water additive used to control microbes.
CIWA Waverly Treatment Plant						
Well #1 after treatment						
Barium (ppm)	2 (2)	SGL	0.039	2014	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Selenium (ppb)	50 (50)	SGL	1.00	2014	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Fluoride (ppm)	4 (4)	SGL	0.5	2014	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories.
Sodium (ppm)	N/A (N/A)	SGL	8.5	2014	No	Erosion of natural deposits; Added to water during the treatment process.
Nitrate (ppm)	10 (10)	SGL	4.9 (3.9 – 4.9)	2016	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Well #2 after treatment						
Barium (ppm)	2 (2)	SGL	0.04	2015	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Selenium (ppb)	50 (50)	SGL	1.00	2015	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Fluoride (ppm)	4 (4)	SGL	0.7	2015	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories.
Sodium (ppm)	N/A (N/A)	SGL	7.9	2015	No	Erosion of natural deposits; Added to water during the treatment process.
Nitrate (ppm)	10 (10)	SGL	5.0 (3.8 – 5.0)	2016	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
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 .						
Chlorate (ppb)	N/A	SGL	288 (190-288)	2014	No	
Strontium (ppb)	N/A	SGL	64.0 (59.8-64.0)	2014	No	
Chromium-6 (ppb)	N/A	SGL	0.0527 (0.0470-0.0527)	2014	No	

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 Shane Metz, Superintendent at (319) 504-7010. Decisions regarding the water system are made at the Dike Council meetings, which are held on the second Wednesday of each month at 7:00 p.m. at the Dike City Hall; 540 Main Street Dike, Iowa and are open to the public.

DEFINITIONS

- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- 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.
- 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
- ppb – parts per billion
- ppm – parts per million
- RAA – Running Annual Average
- SGL – Single Sample Result

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 Environmental Protection Agency'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 Dike 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 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).

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 disinfectant by-products. EPA sets standards for controlling the levels of disinfectants and disinfectant by-products in drinking water.

SOURCE WATER ASSESSMENT INFORMATION

CIWA's treatment plant near Waverly obtains its water from the dolomite Devonian aquifer. The Devonian 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. CIWA wells are highly susceptible to leakage from underground storage tanks, wastewater discharges, sinkholes, and leakage from nearby gas pipelines. A detailed evaluation of the source was completed by the Iowa Department of Natural Resources and is available from Mike Wildung at (641)792-7011.

OTHER INFORMATION

The City of Dike 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 (319)504-7010 or the local police/sheriff department. We appreciate your assistance in protecting the water system.