Annual Drinking Water Quality Report
June 19, 2017

We're pleased to present to our residents this year's ***2016 Annual Quality Water Report***.

This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water source is supplied by two wells that draw from an alluvial aquifer. The two wells are located 5 miles north of Prairie City, south of Highway F48, west of Colfax. The water supply is then filtered and disinfected to further insure the safety and quality of your public water supply.

The following is required source water language provided by the Iowa Department of Natural Resources to be included in our report.

> "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 plumbing. The City of Prairie City 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."

In December 2003, the Iowa Department of Natural Resources approved the City's Wellhead Protection Plan. The Jasper County Board of Supervisors adopted a county wellhead protection ordinance, the first of its kind in Iowa. The Wellhead Protection Plan was made possible by the joint efforts of: the Iowa Rural Water Association; the Jasper County Zoning Administration; Jasper County Board of Supervisors; the Iowa Department of Natural Resources; and the City of Prairie City. The Plan has established protection for the recharge area around Prairie City's wells.

This report shows our water quality and what it means, if you have any questions about this report or concerning your water utility, please contact the City's Office at 994-2649. We want our valued customers to be informed about their water utility. A copy of the report is available on the City's website at www.prairiecityiowa.us. The report is listed under *About Prairie City, City Services, Public Works Department, Water, Annual Drinking Water Quality Report*. A copy of the report has also been provided to the *Prairie City News* for print in its Thursday, June 29, 2017 issue.

The City of Prairie City routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1, 2015 to December 31, 2016. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk. In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Applicable (N/A) - laboratory analysis does not take the constituent in to account.

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level - the "Maximum Allowed" (MCL) is 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 - the "Goal"(MCLG) is 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.

Locational Running Annual Average (LRAA) - is the arithmetic average of analytical results for samples taken at a specific monitoring location during the previous four calendar quarters.

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants						
1. Copper (90th percentile) 09/30/2014	N	0.315 Range 0.373 - 0.572	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
2. Fluoride (Running Annual Average) 12/31/2016	N	0.53 Range 0.260 - 0.790	ppm	4	4	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
3. Lead (90th percentile) 09/30/2014	N	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
4. Nitrate [as Nitrogen] (Single Sample Result) 04/07/2016	N	2.300 Range 0.800 – 6.200	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
5. Sodium (Single Sample Result) 05/24/2016	N	94.0	ppm	N/A	N/A	Erosion of natural deposits. Added to water during treatment process
Disinfectants & Disinfection By-Products						
6. TTHM [Total Trihalomethanes] (Locational Running Annual Average) 09/30/2016	N	16.00 Range 16 - 16	ppb	N/A	80	By-product of drinking water chlorination
7. HAA5 [Total Haloacetic Acids] (Locational Running Annual Average) 09/30/2016	N	9.00 Range 9 - 9	ppb	N/A	60	By-products of drinking disinfection
Distribution System						
8. Chlorine (Running Annual Average) 09/30/2016	N	0.8 Range 0.37 – 1.08	ppm	MRDL 4	MRDLG 4	Water additive used to control microbes.

Prairie City Water Supply routinely monitors the sodium levels in the drinking water. The level of sodium detected in the water supply is 94.0 mg/l.

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 advice from your health care provider.

Nitrates: As a precaution we always notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply.

Lead: Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

As you can see by the table, <u>our system had no violations</u>. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or are man-made. These substances can be microbes, organic or inorganic chemicals, or radioactive materials. The City's water supply is obtained from one or more groundwater aquifers. It is defined as alluvial with a high susceptibility. Every aquifer has a degree of susceptibility to contamination because of the characteristics of the aquifer, overlying materials, and human activity. Susceptibility to contamination generally increases with shallower aquifers, increasing permeability of the aquifer and overlying material, nearby development or agricultural activity, and abandoned or poorly maintained wells.

All 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800-426-4791).

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).