

City of Pella Water Quality Report

The City of Pella is happy to provide the 2016 Consumer Confidence Report to the citizens of Pella. The purpose of this report is to provide the citizens with important information on the quality of the drinking water supply. The chart included with this report lists the substances detected in our water for 2016. If you have any questions, please contact:

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Is my water safe?

Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. The City of Pella Water Department is proud to report that our system has not violated a Maximum Contaminant Level (MCL) or any other water quality standard.

Source Water Assessment.

This water supply obtains a portion of its water from the sand and gravel of the Alluvial aquifer. The Alluvial aquifer was determined to be highly susceptible to contamination because of 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 Iowa Department of Natural Resources, and is available from the City of Pella at 641-628-2464.

This water supply obtains a portion of its water from the sandstone and dolomite of the Cambrian-Ordovician aquifer. The Cambrian-Ordovician aquifer was determined to have low susceptibility to contamination because the characteristics of the aquifer and overlying materials provide natural protection from contaminants at the land surface. The Cambrian-Ordovician well will have low susceptibility 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 Iowa Department of Natural Resources, and is available from the City of Pella at 641-628-2464.

Where does my water come from?

The source of our water is groundwater and groundwater under the influence of surface water. The majority of our water is drawn from 4 shallow wells and a Ranney Collector well located in the Des Moines River Valley. The City of Pella obtains a portion of its water from the Cambrian-Ordovician aquifer (Jordan Sandstone). The Cambrian-Ordovician aquifer was determined to not be susceptible to contamination because the characteristics of the aquifer and overlying materials prevent easy access of contaminants to the aquifer. The Cambrian-Ordovician well will not be susceptible to most contaminant sources except through pathways to the aquifer such as abandoned or poorly maintained wells. This water supply obtains water from one or more surface waters. Surface water sources are susceptible to sources of contamination within the drainage basin. The surface water source is the Des Moines River.

Why are there contaminants in my 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 Environmental Protection Agency's (EPA) safe drinking water hotline at 800-426-4791. The sources of drinking water, both tap and bottled water, include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity: microbial contaminants, such as viruses and bacteria, that may come from sewage plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally occurring or a result from urban storm runoff, industrial, or domestic wastewater discharges, oil and gas production, mining or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm runoff, and residential uses; Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; and radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants 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 seek advice from your health care provider.

How can I get involved?

Decisions regarding the water system are made at the City Council meetings held on the 1st and 3rd Tuesdays of the month at 7:00 p.m. at the Public Safety Complex and are open to the Public.

Other Information

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

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Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Contaminants	MCLG	MCL, TT, or MRDL	Pella's Water	Range Low	Range High	Sample Date	Violation	Typical Sources
Disinfectants and Disinfectant By-Products								
TTHMs (Total Trihalomethanes) [ppb], LRAA	NA	80	54	34	71	2016	No	By-product of drinking water disinfection
Haloacetic Acids (HAA5) [ppb], LRAA	NA	60	19	9	25	2016	No	By-product of drinking water chlorination
Chlorine (as CL2) [ppm], RAA	4	4	1.2	0.52	1.72	2016	No	Water additive used to control microbes
Total Organic Carbon (% removal)	NA	TT	32.08%	32.08%	51.85%	2016	No	Naturally present in the environment
Inorganic Contaminants								
Barium [ppm]	2	2	0.0179	NA	NA	2013	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride [ppm], RAA	4	4	0.72	0.56	0.92	2016	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Sodium [ppm]	NA	NA	56.5	NA	NA	2016	No	Erosion of natural deposits; Leaching
Nitrate (Measured as Nitrogen) [ppm]	10	10	7.5	4	7.5	2016	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Lead - Action level at customer taps [ppb] 90th percent	0	15	1.0	ND	2	2016	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper - Action level at customer taps [ppb] 90th percent	1.3	1.3	0.0111	ND	0.0124	2016	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Microbiological Contaminants								
Turbidity, TT	NA	1	100%	0.03	0.09	2016	No	Soil runoff
100% of the samples were below the TT value of 1. A value less than 95% constitutes a TT violation. The highest single measurement was 0.09. Any measurement in excess of 5 is a violation unless otherwise approved by the state.								
Total Coliform (Positive samples per month)	0	1	0	NA	NA	2016	No	Naturally present in the environment

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Additional Monitoring

Name	Reported Level	Range Low	Range High	Year
Chromium (Total Chromium) ppb	0.56	0.246	0.56	2014
Molybdenum (ppb)	2.975	1.3	2.975	2014
Strontium (ppb)	360	113.008	360	2014
Vanadium (ppb)	2.125	1.46	2.125	2014
Chromium-6 (hexavalent chromium) (ppb)	0.44	0.323	0.44	2014
Cryptosporidium Oocysts	<0.100	<0.100	<0.100	2016

Do I need to take special Precautions?

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/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)

Additional information for lead

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 Pella Water Department 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 your drinking 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>.

Definitions:

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

Maximum Contaminant Level (MCL), the highest level of a contaminant allowed in drinking water.

Maximum Contaminant Level Goal (MCLG), The level of a contaminant in drinking water below which there is no known or expected risk to health.

NA, Not Applicable.

ND, not detected at testing limit.

NTU, Nephelometric Turbidity Units. Turbidity is a measurement of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

PPB, Parts of a contaminant per billion parts of water or micrograms per liter.

PPM, Parts of a contaminant per million parts of water or milligrams per liter.

pCi/L, picocuries per liter.

TT, Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water.

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.

MRDLG, The level of a drinking water disinfectant below which there is no known or expected risk to health.

RAA, Running Annual Average.

LRAA, Locational Running Annual Average.

Cross Connection Control Survey:

The purpose of this survey is to determine whether a cross connection may exist in your home or business. A cross connection is an unprotected or improper connection to a public water system that may cause contamination or pollution to enter the system. We are responsible for enforcing cross connection control regulations and insuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the following devices please contact us so we can discuss the issue and if needed survey the connection and assist you in isolating it if necessary. This includes Boilers, lawn sprinkler systems, pools or hot tubs, additional sources of water on you property or decorative ponds. If you already have a backflow preventer installed it must be tested yearly and reported to the City.