



water for life

## **2014 Consumer Confidence Report**

### **An annual report on the quality of Iowa City's drinking water**

Look how far we've come!

An article in the Iowa City Daily Republican newspaper from October 1882 discussed the improvements that had been made to Iowa City ("The Handsomest City in Iowa," the headline declared) in 1882, especially the Water Works. Indicating the system's importance to the "Agricultural and Stock Interests of the Surrounding County of Johnson and the Manufactories of the City," the article described the proposed water system that would consist of 5 ½ miles of pipe and 70 hydrants, with a plan to add three more miles of pipe and 30 more hydrants "in order to put every building under good fire protection." Cost was about \$6,000. At that time, the water treatment process consisted of filtering water taken from the center channel of the Iowa River. To deliver it, three steam-driven Holly Quadruplex Compound Pumping Engines were used.

Flashing forward to 2015, the Iowa City water system now consists of a computerized, state-of-the-art water treatment plant with a maximum capacity of 16.7 million gallons per day to serve the City's 71,600 residents with clean, clear, safe, tasty drinking water. There are over 260 miles of municipal pipe, approximately 3,300 fire hydrants throughout the City, and a maximum storage capacity of nine million gallons to help meet demands, including fire protection.

Iowa City's water system facilities include one treatment plant, which went into operation in 2003 at 80 Stephen Atkins Drive. The plant utilizes water from multiple surface, alluvial, and groundwater sources. After blending the water, it is purified through an aerator; softened to improve clarity and reduce water hardness; re-carbonated to stabilize the water for customer use; filtered to remove particle traces and improve taste; and then disinfected and fluoridated. The water is then ready for consumption.

Iowa City's water system is operated by a professional staff that performs over 200 water quality tests per day and collects samples for testing at the State Hygienic Laboratory to ensure that the water meets all of the Safe Drinking Water Act Standards.

We believe that the best way to assure you that our drinking water is safe and reliable is to provide you with accurate facts. Although the information in this report may appear technical, the Environmental Protection Agency (EPA) requires municipal utilities to inform water customers of the content of their drinking water. Each year, we provide a Consumer Confidence Report that explains where our water comes from and how it is treated to make it safe and good-tasting. This year's report lists Iowa City's performance regarding EPA water quality regulations and level of detectable compounds in the water in 2014.

The Iowa City Water Division works around the clock to provide the best quality water. We will continue to partner with our customers to protect and conserve water resources, and to provide an economical, safe and dependable water supply now and into the future. We are proud to report that our water far surpasses all federal and state water quality standards.

# 2014 WATER QUALITY REPORT FOR IOWA CITY WATER DEPARTMENT

This report contains important information regarding the water quality in our water system. The source of our water is surface water. Our water quality testing shows the following results:

CONTAMINANT	MCL - (MCLG)	Compliance		Date	Violation Yes/No	Source
		Type	Value & (Range)			
Total Trihalomethanes (ppb) [TTHM]	80 (N/A)	LRAA	50.00 (42 - 63)	09/30/2014	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) [HAA5]	60 (N/A)	LRAA	13.00 (10 - 17)	12/31/2014	No	By-products of drinking water disinfection
Lead (ppb)	AL=15 (0)	90th	4.00 (ND - 14)	2014	No	Corrosion of household plumbing systems; erosion of natural deposits
Total Organic Carbon Removal Ratio	N/A	RAA	1.67	2014	No	Total Organic Carbon (TOC) is a sum measure of the concentration of all organic carbon atoms covalently bonded in the organic molecules of a given sample of water.
Copper (ppm)	AL=1.3 (1.3)	90th	0.02 (ND - 0.02)	2014	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
<b>950 - DISTRIBUTION SYSTEM</b>						
Chlorine (ppm)	MRDL=4.0 (MRDLG=4.0)	RAA	1.0 (0.38 - 1.72)	12/31/2014	No	Water additive used to control microbes
Total Coliform Bacteria	Presence of coliform bacteria in >5% of monthly samples (0)	TCR	2 sample(s) positive	09/30/2014	No	Naturally present in the environment
<b>03 - S/EP IA RIVER, J WELLS, S WELLS, C WELLS</b>						
Fluoride (ppm)	4 (4)	SGL	0.61	01/09/2014	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Sodium (ppm)	N/A (N/A)	SGL	22	04/10/2014	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	5.8 (ND - 5.8)	2014	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Turbidity (NTU)	N/A	TT	0.08 100%	2014	No	Soil runoff

Note: Contaminants with dates indicate results from the most recent testing done in accordance with regulations.

Iowa City is participating in a study with the Environmental Protection Agency related to the "Unregulated Contaminant Monitoring Rule" (UCMR). Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. None of the contaminants currently have a maximum contaminant level (MCL). Note: The most recent list of unregulated contaminants can be obtained on the EPA web site at [www.epa.gov/safewater/ucmr/index.html](http://www.epa.gov/safewater/ucmr/index.html).

<u>Analyte</u>	<u>Value and Range - unit ug/L</u>	<u>MCL/MCLG</u>	<u>Date</u>
Hexavalent chromium	0.45	N/A	12/09/2014
Vanadium	2.40	N/A	12/09/2014
Molybdenum	1.20	N/A	12/09/2014

Strontium	69.5	N/A	12/09/2014
Chromium	0.50	N/A	12/09/2014

- 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 = ug/L.
- ppm -- parts per million = mg/L
- pCi/L – picocuries per liter
- N/A – Not applicable
- ND -- Not detected
- RAA – Running Annual Average
- LRAA – Locational Running Annual Average
- Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.
- 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.
- SGL – Single Sample Result
- TCR – Total Coliform Rule
- NTU – Nephelometric Turbidity Units

## GENERAL INFORMATION

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).

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).

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 Iowa City 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 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>.

## ADDITIONAL HEALTH INFORMATION

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.

## SOURCE WATER ASSESSMENT INFORMATION

This water supply obtains its water from the Lower Iowa sand and gravel of the Alluvial aquifer. The Alluvial 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. 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 Water Operator at 319-356-5162.

This water supply obtains 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 wells 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 Water Operator at 319-356-5162.

This water supply obtains water from one or more surface waters. Surface water sources are susceptible to sources of contamination within the drainage basin.

Surface Water Name	Susceptibility
Iowa River (Sand Pit)	high
Iowa River	high

### **OTHER INFORMATION**

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

### **CONTACT INFORMATION**

#### Public Meeting Information

We encourage our customers to attend and participate in the meetings about our water utility. The Iowa City Council meets the first and third Tuesday of each month at 7 p.m. in:

Emma J. Harvat Hall  
410 E. Washington Street  
Iowa City, IA 52240-1826  
For meeting information call (319)356-5040

For additional information on the Consumer Confidence Report or other water issues please view [www.icgov.org](http://www.icgov.org) or call the Iowa City Water Division, 319-356-5160.

Iowa City Water Division  
80 Stephen Atkins Drive  
Iowa City, IA 52240