

2011 Annual Water Quality Report



**Quad Cities
District**

PWS ID: IA8222001

To Our Valued Customer:

Iowa American Water is proud to be your local water service provider, and I am pleased to share with you good news about the quality of your drinking water. Each year, we provide you with our Annual Water Quality Report – and like so many years prior -- you'll find that we are committed to supplying water that meets or surpasses all state and federal water quality regulations.

This doesn't happen by chance. It requires having the right team of experts and technologies in place. Delivering high-quality, reliable water service to your tap around the clock also requires significant investment in our water infrastructure. In 2011 alone, we invested more than \$8.4 million in water system improvements statewide. From upgrading our treatment facilities to replacing aging water pipelines, we invest prudently and with purpose. And, because we invest our dollars responsibly, we provide our water at about a penny per gallon—an exceptional value for a service that is so essential to our daily lives.

We hope you agree, it's worth every penny and worth learning more about. Please, take the time to review this report. It provides details about the source and quality of your drinking water using the data from water quality testing conducted for your local water system from January through December 2011. For an electronic copy of this report, visit us online at www.amwater.com.

At Iowa American Water, our customers are our top priority, and we are committed to providing you with the highest quality drinking water and service possible now and in the years to come.

Sincerely,

Randy A. Moore
President

ABOUT A PENNY

**Did you know that you pay about
a penny for a gallon of tap water?**

We invest millions of dollars each year in our treatment and distribution facilities to ensure that you receive quality, reliable water service around the clock. At the same time, you pay about a penny per gallon. For most customers, the water bill is the lowest utility bill they pay each month.

That's an exceptional value.

WE CARE ABOUT WATER. IT'S WHAT WE DO.

Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo o hable con alguien que lo entienda bien.

Chi tiết này thật quan trọng.
Xin nhờ người dịch cho quý vị.

What is a Water Quality Report?

To comply with state and U.S. Environmental Protection Agency (U.S. EPA) regulations, Iowa American Water issues a report annually describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and the need to protect your drinking water sources. This report provides an overview of last year's (2011) water quality. It includes details about where your water comes from and what it contains.

Where Does My Water Come From?

Water for the Iowa Quad Cities is taken from the Mississippi River and treated in Iowa American Water's state-of-the-art East River Station treatment facility. Our high-tech water treatment plant uses some of the best equipment and technology available to the water industry. The treatment process utilizes conventional coagulation and settling processes and parallel Superpulsator clarification, followed by granular activated carbon filtration. The granular activated carbon filtration process is cited by the U.S. EPA as one of the most effective treatment technologies for the removal of organic chemicals, such as farm pesticides and industrial wastes. It is also highly effective in eliminating many taste and odor problems.

Protecting Your Water Source

The Source Water Assessment Program (SWAP) is a result of the 1996 amendments to the Federal Safe Drinking Water Act (SDWA). Those amendments require all states to establish a program to assess the vulnerability of public water systems to potential contamination. The Iowa Department of Natural Resources (DNR) has prepared Source Water Assessment Reports and Summaries for all public water systems.

In 2003, the Iowa DNR completed an assessment of the Mississippi River watershed in this area. Rivers, streams, and reservoirs are highly susceptible to contamination because of surface runoff. Our water source is considered most vulnerable to contaminants from agricultural and urban runoff. These contaminants include nutrients such as nitrate and phosphorus and other man-made and natural contaminants. A summary report is available upon request from Iowa American Water by contacting Brent Earley, water quality supervisor, at (563) 322-8814, ext.3 or Brent.Earley@amwater.com.

Iowa American Water takes pride in promoting the protection and enhancement of the habitats on our property and those affected by our operations. This includes efforts such as:

- Promoting and working on environmental stewardship projects in our communities, through both financial support and employee volunteerism.
- Looking for opportunities to incorporate stewardship activities in our capital projects.
- Leading by example in our environmental responsibilities (e.g. recycling paper, double-sided printing, turning out the lights).
- Using water wisely, including practicing and encouraging water conservation and source water protection programs.

Investing In Our Communities

Delivering quality water service requires continued infrastructure investment. Iowa American Water invested over \$7.1 million in water system improvements in the Iowa Quad Cities in 2011 to continue to preserve water quality, maintain reliability and continue to meet the needs of customers. Some of the largest investments included:

- \$3.6 million investment for normal, recurring installation and replacement of water pipelines, services, meters and hydrants.
- \$ 2.5 million investment for Flocculator/Sedimentation Improvement Project at the East River Station treatment facility to enhance flocculation and clarification treatment capabilities, decrease maintenance costs and improve treatment efficiency and reliability.
- \$400,000 investment for Phase 1 of the Corps of Engineer's Flood Protection Project that will protect East River Station to the 200 year flood level. Iowa American Water is partnering with the federal government and City of Davenport on this project. In total, Iowa American Water will invest \$2.7 million.
- \$2.2 million investment on water main upgrade project on Kimberly Road to replace almost 1.5 miles of aging water main. The project improves service reliability and increases water flow for firefighting.
- \$850,000 investment to relocate 16", 12" and 8" water main in conjunction with the city of Davenport's west side sewer separation project.

Iowa American Water is proud of its professional and dedicated workforce. Our commitment to customer service and operational integrity remains (and always will be) paramount.

About Iowa American Water

Iowa American Water, a wholly owned subsidiary of American Water (NYSE: AWK), is the largest investor-owned water utility in the state, providing high-quality and reliable water services to approximately 200,000 people. Founded in 1886, American Water is the largest investor-owned U.S. water and wastewater utility company. With headquarters in Voorhees, N.J., the company employs approximately 7,000 dedicated professionals who provide drinking water, wastewater and other related services to approximately 15 million people in more than 30 states, as well as parts of Canada. More information can be found by visiting www.amwater.com.

In 2011, American Water celebrated its 125th anniversary with a yearlong campaign to promote water efficiency and the importance of protecting water from source to tap.

Educational Information

Cryptosporidium

Cryptosporidium is a protozoan found in the surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of the protozoan in the Mississippi River water; however, our testing has also shown this organism to be consistently absent in our drinking water. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks.

However, people with severely weakened immune systems have a risk of developing life-threatening illness. We encourage such people to consult their doctors regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it is spread through means other than drinking water. For additional information regarding cryptosporidiosis and how it may impact those with weakened immune systems, please contact our Customer Service Center at (866) 641-2108 or speak with your personal health care provider.

How to Contact Us

Our customer service line is available to serve you 24 hours a day, everyday at (866) 641-2108 or visit our website at www.iaamwater.com. For more information about this report or for any questions related to your drinking water, please call Brent Earley, water quality supervisor, at (563) 322-8814, ext. 3 or Brent.Earley@amwater.com.

Partnership for Safe Drinking Water Program

In 2011, Iowa American Water was awarded a second prestigious "Director's Award" under the Partnership for Safe Water program administered by the U.S.

EPA, Iowa Department of Natural Resources, and other water related organizations. The award honors water utilities for achieving operational excellence, by voluntarily optimizing their treatment facility operations and adopting more stringent performance goals than those required by federal and state drinking water standards. We are proud to report that we have maintained those standards throughout 2011.

Iowa American Water joined the partnership in 1995, and remains one of only three utilities in Iowa to participate. Currently the Partnership includes 223 water utilities across the nation committed to the enhancement of drinking water quality and operational excellence in water treatment. Iowa American Water prides itself in being an industry leader that proactively joins initiatives and water research efforts to promote high quality water, reliability and exceptional service to customers.

Iowa American Water's Quad Cities District was the first water utility in Iowa to be awarded the Partnership for Safe Water Program's "Director's Award" and remains the only Iowa water utility to be recognized with this prestigious award. The company has maintained this honor for ten consecutive years.



How to Read This Table

Iowa American Water conducts extensive monitoring to ensure that your water meets all water quality standards. The results of our monitoring are reported in the data tables. For help with interpreting these tables, see the table definitions and footnotes.

Definitions of Terms Used in This Report

- **Action Level:** The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.
- **Amount Detected:** Unless otherwise noted in the footnotes, an average of all sample results for the year, or results from a single sample if only one was collected. With multiple entry points to the distribution system, the data from the entry point with the highest value is reported. Amount detected for distribution samples represents an average of all samples collected.
- **Compliance Achieved:** Indicates that the levels found were all within the allowable levels as determined by the U. S. EPA.
- **MCL (Maximum Contaminant Level):** 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.
- **MCLG (Maximum Contaminant Level Goal):** 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.
- **MRDL (Maximum Residual Disinfectant Level):** The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **MRDLG (Maximum Residual Disinfectant Level Goal):** The level of 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 contamination.
- **NTU (Nephelometric Turbidity):** Measurement of the clarity, or turbidity, of the water.
- **ppm (parts per million):** One part substance per million parts water, or milligrams per liter.
- **ppb (parts per billion):** One part substance per billion parts water, or micrograms per liter.
- **Range of Detections:** Indicates individual sample results (SS), or a range from lowest to highest, that were collected during the sample period.
- **TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.
- **Typical Source:** Indicates where the substance usually originates.

What's in My Water?

The source of drinking water (both tap water and bottled water) includes 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 from human activity.

Contaminants that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Turbidity measurement can be an effective tool to determine removal efficiency of particles, some of which may include microbial contaminants. Turbidity is a measurement of the cloudiness in the water caused by suspended particles. We continuously monitor turbidity because it is a good indicator of water quality and the effectiveness of our filtration system.

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban storm water 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 water runoff and residential uses.

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban storm water runoff and septic systems.

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

Trihalomethanes and Haloacetic Acids, also known as disinfection by products are formed by the reaction of the chlorine disinfectant with naturally-occurring organics found in the source water. Some people who drink water containing Trihalomethanes in excess of the MCL over many years may experience problems with their livers, kidneys, or central nervous systems and may have increased risk of getting cancer. Some people who drink water containing Haloacetic Acids in excess of the MCL over many years may have an increased risk of getting cancer.

To ensure that tap water is of high quality, U.S. EPA prescribes regulations limiting the amount of certain substances in water provided by public water systems. Iowa American Water's advanced water treatment processes are designed to reduce any such substances to levels well below any health concerns.

Important Health 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 poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or by calling our 24-hour customer service line at (866) 641-2108 for more information.

Water Quality Results

Iowa American Water conducts thousands of water quality analyses annually to ensure that your water meets all water quality standards. The following tables show what substances were detected in our drinking water in 2011. Many more contaminants are tested for each year, but fall below laboratory detection limits. Although all of the substances listed below are currently under the maximum contaminant level (MCL) set by U.S. EPA, we feel it is important that you know exactly what was detected and how much of the substance was present in the water. For help interpreting this table, see the "How to Read This Table" section.

Regulated Substances (Measured on the water leaving the treatment facility) ¹							
Substance (units)	Year Sampled	MCLG	MCL	Amount Detected	Range Of Detections	Compliance Achieved	Typical Source
Arsenic (ppb)	2007	0	10	2	SS	Yes	Erosion of natural deposits
Atrazine (ppb)	2011	3	3	ND	ND	Yes	Runoff from herbicide used on row crops.
Barium (ppm)	2007	2	2	0.052	SS	Yes	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm) ²	2011	4	4	0.77	0.15 - 1.18	Yes	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate as Nitrogen (ppm) ³	2011	10	10	4.42	1.34 - 7.76	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite as Nitrogen (ppm)	2011	1	1	0.04	0.000 - 0.674	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Organic Carbon (ppm) ⁴	2011	TT = 25% Removed	NA	39.4% Removed	24.2% - 49% Removed	Yes	Naturally present in the environment

Turbidity - A Measure of the Clarity of the Water (at the treatment facility)							
Substance (units)	Year Sampled	MCLG	MCL	Amount Detected	Range of Detections	Compliance Achieved	Typical Source
Turbidity (NTU) (Percent less than 0.3 NTU)	2011	NA	TT <= 0.30 NTU in 95% of the samples each month	100% less than 0.3 NTU	100% - 100%	Yes	Soil runoff
Turbidity (NTU)	2011	NA	TT = 1 NTU max	0.07	0.04 - 0.14	Yes	Soil runoff

Other compounds (Measured in the distribution system)							
Substance (units)	Year Sampled	MRDLG or MCLG	MRDL or MCL	Amount Detected	Range of Detections	Compliance Achieved	Typical Source
Chloramines (ppm) ⁵	2011	4	4	3.08	0.28 - 5.3	Yes	Water additive to control microbes
THMs [Total trihalomethanes] (ppb)	2011	NA	80	92	23 - 120	No⁶	By-product of drinking water chlorination
HAAs [Haloacetic acids] (ppb)	2011	NA	60	27	13 - 45	Yes	By-product of drinking water chlorination

Bacterial Results (Measured in the distribution system)							
Substance (units)	Year Sampled	MCLG	MCL	Highest Monthly Amount Detected	Range of Detections	Compliance Achieved	Typical Source
Total Coliforms (% Positive per month)	2011	0	5%	0%	ND	Yes	Naturally present in the environment

Tap Water Samples: Lead and Copper Results ⁷									
Substance (units)	Year Sampled	Action Level	MCLG	Amount Detected in 90th Percentile Sample	Amount Detected in 95th Percentile Sample	Number of Samples Collected	Compliance Achieved	Number of Samples Above Action Level	Typical Source
Copper (ppm)	2009	1.3	1.3	0.165	NA	53	Yes	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2009	15	0	2	2	53	Yes	0	Corrosion of household plumbing systems; Erosion of natural deposits

Other Substances of Interest (Unless noted, measured on the water leaving the treatment facility)				
Substance (units)	Year Sampled	Amount Detected	Range of Detections	Typical Source
Alkalinity (ppm as CaCO ₃)	2011	158	118 - 205	Erosion of natural deposits
Hardness (ppm as CaCO ₃)	2011	240	212 - 282	Erosion of natural deposits
Hardness (gpg)	2011	14.06	12.38 - 16.47	Erosion of natural deposits
N-Nitroso-Dimethylamine (NDMA) (ppb) ⁸	2009	0.02465	ND - 0.0313	Disinfection by-product
pH	2011	7.4	7.1 - 7.8	
Sodium (ppm) ⁹	2011	12.8	SS	Erosion of natural deposits
Chromium-6 (ppb) ¹⁰	2011	0.121	0.1 - 0.14	Discharge from steel and pulp mills; Erosion of natural deposits

¹ The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.

² Fluoride is added to the water to help promote strong teeth.

³ Nitrate in drinking water at levels above 10 ppm is a health risk for infants less than 6 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.

⁴ Total organic carbon (TOC) has no health effects. However, TOC contributes to the formation of disinfection by-products. These by-products include Trihalomethanes (THMs) and Haloacetic Acids (HAAs). Drinking water containing these by-products in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

⁵ Chloramine is a disinfecting agent added to control microbes that otherwise could cause waterborne diseases or other water quality concerns. Most water systems are required by law to add disinfecting agents, such as chloramine. The values reported reflect multiple locations in the service area.

⁶ Testing results from May 2011 showed that our system exceeded the maximum contaminant level (MCL), for total trihalomethanes (TTHMs). The MCL for TTHMs is 80 Parts Per Billion (ppb) and compliance is based on the average of results collected over the previous 12 months. With the May 2011 sample, TTHMs averaged 92 ppb prompting Iowa American Water - QC District to implement operational changes (discontinued intermediate chlorine application) and process improvements (constructed a chlorine contact chamber to reduce chlorine contact time prior to ammonia addition) which reduced TTHMs. With the September 2011 sample, TTHMs averaged 78 ppb and with the October 2011 sample, TTHMs averaged 60 ppb. Iowa American Water was out of TTHM compliance for the second quarter of 2011. Third quarter results show the water is back under the MCL of 80 ppb, and in compliance.

⁷ 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. Iowa-American Water Co- Davenport 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>.

⁸ This parameter was monitored as part of the Unregulated Contaminant Monitoring Rule. Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of the unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Results listed in table include monitoring performed both in water leaving the treatment plant as well as in the distribution system.

⁹ There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.

¹⁰ Chromium-6 is not currently regulated as an individual substance. Iowa American Water voluntarily performed monitoring of this unregulated contaminant both in water leaving the treatment plant as well as in the distribution system based on recommendations from USEPA. For more information on Chromium 6, please visit our web site.