

2012 WATER QUALITY REPORT



Water Sources

The Dubuque Water Department obtains water from two groundwater aquifers. The Alluvial aquifer is considered to be highly susceptible to contamination, while the Cambrian-Ordovician aquifer has a low degree of susceptibility to contamination. 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. A detailed evaluation of your source water was completed by the Iowa Department of Natural Resources, and is available on our website at www.cityofdubuque.org/water. You may also call 563.589.4291 to obtain a copy of the report.



Special Health Information

Thanks to the Safe Drinking Water Act, the United States has the safest water supply and distribution system in the world. However, if you have special health requirements, you should know some people may be more vulnerable to contaminants found 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 at 800.426.4791.

Community Participation

The Dubuque City Council meets on the first and third Monday of each month in the City Council Chambers on the second floor of the Historic Federal Building at 350 West 6th Street. Meetings begin at 6:30 p.m. and are broadcast live on CityChannel, Dubuque's local government access channel (97.2 digital, 8 analog) on the Mediacom cable system. Meetings are also streamed live and archived on the City website, www.cityofdubuque.org/media. For agenda and minutes information, visit www.cityofdubuque.org/citycouncil or contact the City Clerk's Office at 563.589.4120 or cityclerk@cityofdubuque.org.

Please feel free to participate in these meetings. For additional information, visit the city's website at www.cityofdubuque.org.

Sustainability

Sustainability is defined by a community's ability to meet the environmental, economic, and social equity needs of today without reducing the ability of future generations to meet their needs.

Sustainable Dubuque is a holistic approach to making our community sustainable. Our model involves a three-part approach that looks at:

- **Economic Prosperity**
- **Environmental and Ecological Integrity**
- **Social and Cultural Vibrancy**

Each of these pieces is important individually and helps contribute to a sustainable community. To find out more about how the model works, contact Cori Burbach, Sustainable Community Coordinator, at 563.690.6038 or cburbach@cityofdubuque.org.

**“Dubuque’s water
meets all state
and federal
drinking water
quality standards.”**

Purpose of the Water Quality Report

The City of Dubuque Water Department is proud to present you with our annual water quality report. We are dedicated to producing drinking water that meets or exceeds all state and federal drinking water standards. The purpose of this report is:

**To provide you with information about your
drinking water**

**To comply with the United States
Environmental Protection Agency (EPA)
reporting requirements**

Through the federal Safe Drinking Water Act (SDWA), the U.S. Environmental Protection Agency (EPA) sets national limits for hundreds of substances in drinking water and also specifies various treatments that water systems must use to remove these substances. Each system continually monitors for these substances and reports to the EPA if the substances are detected in the drinking water. The EPA uses this data to ensure that consumers are receiving clean water and to verify that states are enforcing laws that regulate drinking water.

This publication conforms to the SDWA requirement that water utilities annually provide detailed water quality information to each of their customers. We are committed to providing you with this information about your water supply because customers who are well informed are our best allies in supporting improvements necessary to maintain the highest drinking water standards.

For more information about this report, or for any questions relating to your drinking water, please contact Bob Green, Water Department Manager, at 563.589.4291 or Jacqueline Rodriguez, Water Plant Manager, at 563.589.4290 or Michael Brekke, Distribution Supervisor, at 563.589.4303.

2011 Drinking Water Summary

Substances Found in Drinking Water

The City of Dubuque Water Department is proud of the high quality of our water supply, which meets all state and federal drinking water quality requirements. We are pleased to inform you that Dubuque had no drinking water violations for 2011. The table below lists substances that were detected in our water. Some of these substances have maximum contaminant levels (MCLs) established by the Safe Drinking Water Act. The EPA also requires us to monitor for certain unregulated substances while they consider whether or not to enforce limits on them. Testing is not required for each parameter every year. For more information concerning your drinking water, please contact the Eagle Point Water Treatment Plant at 563.589.4291 or jrodrigu@cityofdubuque.org, or by mail at 1902 Hawthorne Street, Dubuque, IA 52001.

Information Concerning 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 Dubuque 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 at 800.426.4791 or at www.epa.gov/safewater/lead.

The Dubuque Water Department sampled 31 sites for lead in 2009. The results indicated that one sample exceeded the Action Level. According to EPA regulations, utilities must have 90% of their lead samples below the Action Level. Ninety-seven percent of the samples taken were in compliance with this regulation.

Table Definitions

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health

N/A: Not Applicable

ppb: Parts per billion (or micrograms per liter)

ppm: Parts per million (or milligrams per liter)

RAA: Running Annual Average

Range (Low - High): This column represents a range of individual sample results, from lowest to highest, that were collected during the reporting year

SGL: Single Monitoring Period Sample

TCR: Total Coliform Rule

Action Level (AL): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow

Amount Detected: This column represents an average of sample result data collected during the reporting year

MGD: Million Gallons Daily

Maximum Contaminant Level (MCL): The highest level of a contaminant that is 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

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water

To ensure that tap water is safe to drink, the EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these 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.

Public water systems and water bottlers use a variety of water sources. These sources include rivers, lakes, ponds, reservoirs, springs, and groundwater wells. As water travels over the surface of the land or through the ground, it can acquire naturally occurring minerals, radioactive material (if present), and can pick up substances resulting from the presence of animals or from human activity. Substances 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.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or 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 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 can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally occurring or be the result of oil and mining activities.

LEAD AND COPPER REPORT

ANALYTE	MCL/AL	MCLG	COMPLIANCE		DETECT		SAMPLES		BEGIN DATE	END DATE	VIOLATION	TYPICAL SOURCE
			TYPE	VALUE	MIN	MAX	TOTAL	EXCEED				
Copper (ppm)	AL = 1.3	1.3	90th	0.0186	0	0.0335	31	0	06/01/2009	09/30/2009	NO	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	AL = 15	0	90th	4	0	22	31	1	06/01/2009	09/30/2009	NO	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	AL = 15	0	95th	7	0	22	31	1	06/01/2009	09/30/2009	NO	Corrosion of household plumbing systems; Erosion of natural deposits

DISTRIBUTION SYSTEM DETECT REPORT

ANALYTE	MCL/AL	MCLG	COMPLIANCE		SAMPLE		BEGIN DATE	END DATE	VIOLATION	TYPICAL SOURCE
			TYPE	VALUE	MIN	MAX				
Total Haloacetic Acids (ppb) HAAs	60.0	N/A	RAA	12.77	9	20	01/01/2011	12/31/2011	NO	By-products of drinking water chlorination
Total Trihalomethanes (ppb) [TTHM]	80	N/A	RAA	47.30	32.8	80	01/01/2011	12/31/2011	NO	By-products of drinking water chlorination

FINISHED WATER TAP DETECT REPORT

ANALYTE	MCL/AL	MCLG	COMPLIANCE		SAMPLE		BEGIN DATE	END DATE	VIOLATION	TYPICAL SOURCE
			TYPE	VALUE	MIN	MAX				
Barium	2	2	MCL	0.017	0.017	0.017	01/12/2011	01/12/2011	NO	Erosion of natural deposits
Fluoride	4	4	MCL	0.69	0.25	1.64	01/01/2011	12/31/2011	NO	Erosion of natural deposits; Added to water during treatment process
Nitrate	10	10	MCL	0.7	0.5	0.8	01/05/2011	07/19/2011	NO	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	N/A	N/A	SGL	16.1	N/A	N/A	01/12/2011	01/12/2011	NO	Erosion of natural deposits; Added to water during treatment process

CHLORINE RESIDUAL REPORT

ANALYTE	MRDL	MRDLG	COMPLIANCE		SAMPLE		BEGIN DATE	END DATE	VIOLATION	TYPICAL SOURCE
			TYPE	VALUE	MIN	MAX				
Chlorine (ppm)	4.0	4.0	RAA	1.0	0	1.99	01/01/2011	12/31/2011	NO	Water additive used to control microbes