

A Message from the Environmental Protection Agency

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. 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. The EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the national Safe Drinking Water Hotline (800) 426-4791.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems.

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 for advice from your health care provider.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline.

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical and mental development. Adults who drink this water over many years could develop kidney problems or high blood pressure.

FDA regulations establish limits for contaminants in bottled water that 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 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 EPA's Safe Drinking Water Hotline.

SAFE DRINKING WATER HOTLINE:

1-800-426-4791

www.epa.gov/OGWDW

Definitions

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

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.

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.

TT - Treatment Technique. The EPA requires DMWW to employ certain treatment processes to reduce turbidity and eliminate microorganisms. Turbidity must not ever exceed 1 NTU, and must be less than 0.3 NTU 95% of the time.

Contaminants that may be present in the source water include:

Microorganisms, 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 occur naturally or come from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and Herbicides, which may come from agriculture, urban stormwater runoff, and residential uses.

Organic chemicals, including synthetic and volatile organic chemicals, which are industrial and petroleum process byproducts and can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive Contaminants, which can occur naturally or result from oil and gas production and mining activities.

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Consumer Confidence Report

A publication on quality water and quality service presented by
DES MOINES WATER WORKS



This annual Consumer Confidence Report is your guide to the quality and safety of the tap water provided by Des Moines Water Works. Supplying Central Iowa with clean, safe drinking water is DMWW's most important function. The treatment

process begins by drawing water from the Raccoon River, the Des Moines River, and the infiltration gallery at either of our two treatment plants located on Fleur Drive and at Maffitt Reservoir. The water is lime softened, filtered, fluoridated, and disinfected before delivery to you, our customer. DMWW removes any nitrate to keep our water below the Environmental Protection Agency's (EPA) maximum contaminant level of 10 milligrams per liter.

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 can dissolve naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances from the presence of animals or humans. For this reason, regular testing of the water is required. Listed on the inside of this publication are test results for DMWW's water supply.

We encourage our customers to stay informed on drinking water and watershed protection issues. Please contact us at (515) 283-8700 or visit our website at www.dmww.com if you have any questions about your drinking water. For additional information, visit the American Water Works Association website dedicated to consumer drinking water quality at www.drinktap.org.



Public Meeting & Utility Contact Information

- ANKENY**
Ankeny City Council
1st and 3rd Monday of each month at 5:00 p.m.
410 West 1st Street · Ankeny, Iowa 50021
Customer Service
210 SW Ankeny Boulevard · Ankeny, Iowa 50021
Phone: (515) 283-8700 · Fax: (515) 283-8727
E-mail: jmckenna@ci.ankeny.ia.us
- BERWICK**
Berwick City Council
1st Monday of each month
6855 NE Berwick Drive · Ankeny, Iowa 50021
Fred Tomlinson
Phone: (515) 262-4378 · Fax: (515) 262-1342
- BONDURANT**
Bondurant City Council
1st and 3rd Monday of each month at 6:00 p.m. Bondurant City Hall · 200 2nd NE Bondurant, Iowa 50035
Patrick F. Collison
Phone: (515) 971-6856 · Fax: (515) 967-5732
- CLIVE**
Clive City Council
1st, 3rd, & 5th* Thursdays of each month (*5 week months)
Clive City Hall · 1900 NW 114th St. · Clive, Iowa 50325
Bart Weller, Director of Public Works
9289 Swanson Blvd. · Clive, Iowa 50325
Phone: (515) 223-6231 · Fax: (515) 223-6013
E-mail: bweller@cityofclive.com
- CUMMING**
Cumming City Council
2nd and 4th Monday each month
City Hall · Cumming, Iowa 50061
Kathie Hungerford
P.O. Box 100 · Cumming, Iowa 50061
Phone: (515) 981-9214 · Fax: (515) 981-4981
- DES MOINES**
Board of Water Works Trustees
4th Tuesday each month at 3:30 p.m.
Des Moines Water Works
2201 George Flagg Parkway · Des Moines, Iowa 50321
Customer Service
Phone: (515) 283-8700 · Fax: (515) 283-8727
E-mail: information@dmww.com
- EARLHAM**
Earlham City Council
2nd Monday of each month at 7:00 p.m.
Earlham City Hall · Earlham, Iowa 50072
Bruce Koboldt, Public Works Superintendent
P.O. Box 518 · Earlham, Iowa 50072
Phone: (515) 758-2157 or (515) 758-2281
Fax: (515) 758-2710
- JOHNSTON**
Johnston City Council
1st and 3rd Monday of each month at 7:00 p.m.
City Hall · 6221 Merle Hay Road · Johnston, Iowa 50131
Lori Eden
P.O. Box 410 · Johnston, Iowa 50131-0410
Phone: (515) 278-0822 · Fax: (515) 727-8092
E-mail: leden@ci.johnston.ia.us
- NEW VIRGINIA**
New Virginia City Council
1st Saturday of each month at 8:00 a.m.
Fire Station meeting room · New Virginia, IA 50210
Brent Baughman
305 Main Street, P.O. Box 302 · New Virginia, IA 50210
Phone: (641) 449-3379 · Fax: (641) 449-3310
- NORWALK**
Norwalk City Council
1st and 3rd Thursday of each month at 7:00 p.m.
705 North Avenue · Norwalk, Iowa 50211
Dean Yordi, Community Services Director
Phone: (515) 981-0228 · Fax: (515) 981-0933
E-mail: deanyordi@ci.norwalk.ia.us
- PLEASANT HILL**
Pleasant Hill City Council
2nd and 4th Tuesday of each month at 6:30 p.m.
Pleasant Hill City Hall
5151 Maple Drive · Pleasant Hill, Iowa 50317
Gary Patterson, Public Works Director
Phone: (515) 262-9368 · Fax: (515) 262-9570
- POLK COUNTY RURAL WATER DISTRICT #1**
Annual Meeting in January each year · Call for date
660 NW 66th Avenue, Suite 2 · Des Moines, Iowa 50313
Clate VanderPool
Phone: (515) 289-2643
- SOUTHEAST POLK RURAL WATER DISTRICT**
Board of Directors
3rd Wednesday of each month at 6:00 p.m.
Southeast Polk Rural Water Office
6540 NE 12th Avenue · Altoona, Iowa 50009
Southeast Polk Rural Water District
Phone: (515) 262-8581 · Fax: (515) 262-4536
E-mail: seph20@prairieinet.net
- ST. CHARLES**
St. Charles City Council
1st Monday of each month at 7:00 p.m.
St. Charles City Hall
113 S. Lumber St. · St. Charles, Iowa 50240
Randy Gray, Water Superintendent
Phone: (641) 396-2545 · Fax: (641) 396-2545
E-mail: stccity@netins.net
- URBANDALE**
Water Board of Trustees
Meets monthly · Call 278-3940 for information
Urbandale Water Department
3720 86th Street · Urbandale, Iowa 50322
Customer Service
Phone: (515) 278-3940 · Fax: (515) 278-3944
E-mail: waterdept@urbandale.org
- WARREN WATER DISTRICT**
Board of Directors
3rd Monday each month at 7:00 p.m.
Warren Water District Office
1204 East 2nd Avenue · Indianola, Iowa 50125
Peggy Crabbs, Systems Manager
Phone: (515) 962-1200 · Fax: (515) 962-9328
E-mail: pccrabbs@warrenwaterdistrict.com
- WAUKEE**
Waukee City Council
1st and 3rd Monday each month at 7:00 p.m.
Waukee City Hall · 230 Highway 6 · Waukee, Iowa 50263
John R. Gibson, Director of Public Works
Phone: (515) 987-4363 · Fax: (515) 987-3979
E-mail: jgibson@waukee.org
- WINDSOR HEIGHTS**
Windsor Heights City Council
1st and 3rd Monday each month at 5:00 p.m.
Windsor Heights City Hall
1133 66th Street · Windsor Heights, Iowa 50311
Customer Service
Phone: (515) 283-8700 · Fax: (515) 283-8727
- XENIA RURAL WATER DISTRICT**
Board of Directors
Thursday of 3rd full week of each month
2398 141st Street · Bouton, Iowa 50039
Dave Modlin
Phone: (515) 676-2117 · Fax: (515) 676-2208
E-mail: dave@xeniamwater.org

Des Moines Water Works completed a Source Water Assessment in 2001. To obtain a copy of the SWA, visit our website at www.dmww.com, or call (515) 283-8700 to request a printed copy.



WATER QUALITY REPORT 2004

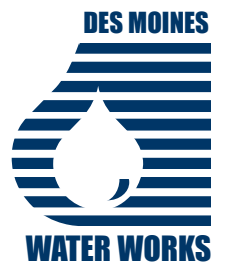
Drinking Water Limits

Regulated substances have Maximum Contaminant Levels (MCLs) set by the Environmental Protection Agency (EPA). This is the highest level allowed in drinking water. Some contaminants also have MCL goals (MCLGs). The MCLG is the amount where there is no known or expected health risk. MCLGs allow for a margin of safety. MCLs are set as close to MCLGs as feasible using the best available water treatment processes.

Detected Amounts

DMWW produces your drinking water at two different treatment plants, Fleur Drive and Maffitt Reservoir. The level found is sometimes the highest amount of the substance found or may be the average of several samples taken over a set time period, depending on the regulation for the contaminant. If multiple samples were tested during 2004, the lowest and highest detected concentrations are shown.

2004 Lab Test Results	Year Tested	Units	MCL	MCLG	Fleur Drive Treatment Plant		Maffitt Reservoir Treatment Plant		Typical Source of Substance
					Level Found	Range of Detections	Level Found	Range of Detections	
Organic Substances									
Total Trihalomethanes (TTHMs)	2004	µg/L	80	-	46.6	43.2-54.0	31.0	29.0-36.8	Byproduct of drinking water disinfection
Total Haloacetic Acids (HAA5)	2004	µg/L	60	-	14.0	9.5-18.0	9.7	ND-11.2	Byproduct of drinking water disinfection
Metolachlor	2001	µg/L	-	-	-	-	1.6	-	Runoff from herbicide use on row crops
Microbiological Substances									
Turbidity	2004	NTU	TT	-	<0.3	0.01-0.19	<0.3	0.03-0.08	Soil runoff
Total Coliform Bacteria	2004	Positive samples	5% of monthly samples	Present in no monthly samples	<1% of monthly samples	-	<1% of monthly samples	-	Naturally present in the environment
Inorganic Substances									
Nitrate as Nitrogen	2004	mg/L	10	10	9.58	1.30-9.58	9.76	0.44-9.76	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite as Nitrogen	2004	mg/L	1	1	0.28	ND-0.28	0.34	ND-0.34	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Fluoride	2004	mg/L	4	4	1.53	0.79-1.53	1.47	0.75-1.47	Additive for strong teeth; erosion of natural deposits; fertilizer
Sodium	2004	mg/L	-	-	39.5	13.2-39.5	22.5	8.21-22.5	Erosion of natural deposits
Sulfate	2004	mg/L	-	-	93.4	33.2-93.4	81.1	26.0-81.1	Erosion of natural deposits
Radiological Substances									
Combined Radium	2003	pCi/L	5	0	0.7	-	-	-	Erosion of natural deposits
Beta Emitters	2002	pCi/L	8	0	2.9	-	-	-	Decay of natural and man-made deposits
Alpha Emitters	2001	pCi/L	15	0	0.5	-	-	-	Erosion of natural deposits
Disinfectant									
Chlorine	2004	mg/L	MRDL 4	MRDLG 4	0.6	0.51-0.68	0.6	0.51-0.68	Additive to control microbes



Tested Substances

The Iowa Department of Natural Resources monitors both regulated and unregulated substances. DMWW will notify residents if a harmful amount of any contaminant

Year Tested

Indicates the year in which the contaminant was most recently detected. The frequency of required monitoring varies depending on the regulation for the particular contaminant.

Units of Measure

mg/L: milligrams per liter- equivalent to a single penny in ten thousand dollars.
µg/L: micrograms per liter- equivalent to a single penny in ten million dollars.
pCi/L: picocuries per liter, a measure of radioactivity
NTU: Nephelometric Turbidity Units

Sources

Natural and man-made sources of the substance found in the water. Some substances are added, others are a byproduct of the disinfection process, while others are naturally occurring.

2004 Total Organic Carbon Lab Results

Treatment Plant	Year Tested	% Removal From Source Water	Removal Requirements Met
Fleur Drive	2004	27.7-58.3	Yes
Maffitt Reservoir	2004	15.2-45.2	Yes

Utility	COPPER			LEAD			# Lead Samples Above Action Level	Sources of Contamination	TTHMs		HAA5		Disinfectant- Chlorine	
	Units	Action Level	90th Percentile*	Units	Action Level	90th Percentile*			Level Found	Range of Detections	Level Found	Range of Detections	RAA	Range of Detections
Ankeny	mg/L	1.3	0.025	µg/L	15.0	6.1	2 of 61 samples	Corrosion of home plumbing	49.1	27.4-78.0 µg/L	8.9	6.0-19.0 µg/L	0.56 mg/L	0.48-0.62 mg/L
Berwick	mg/L	1.3	0.024 ²	µg/L	15.0	<6.0 ²	0 of 5 samples	Corrosion of home plumbing	53.3	37.9-75.0 µg/L	6.5	10.0-16.0 µg/L	0.33 mg/L	0.18-0.49 mg/L
Bondurant	mg/L	1.3	0.000	µg/L	15.0	7.0	2 of 20 samples ²	Corrosion of home plumbing	56.0	48.1-63.9 µg/L	18.0	13.0-22.7 µg/L	1.11 mg/L	0.47-1.40 mg/L
Clive	mg/L	1.3	0.022	µg/L	15.0	0.0	0 of 33 samples ²	Corrosion of home plumbing	50.8	30.0-72.0 µg/L	8.9	4.0-14.0 µg/L	0.466 mg/L	0.38-0.58 mg/L
Cumming	mg/L	1.3	<0.05 ²	µg/L	15.0	.0035 ²	0 of 5 samples	Corrosion of home plumbing	41.5	41.5 µg/L	14.0	14.0 µg/L	0.27 mg/L	0.13-0.60 mg/L
Des Moines Water Works	mg/L	1.3	0.022 ¹	µg/L	15.0	<6.0 ¹	0 of 52 samples	Corrosion of home plumbing	<i>see table above</i>		<i>see table above</i>		<i>see table above</i>	
Earlham	mg/L	1.3	0.010 ¹	µg/L	15.0	7.7 ¹	1 of 10 samples ²	Corrosion of home plumbing	58.0	39.0-74.0 µg/L	11.8	10.0-13.0 µg/L	1.00 mg/L	0.45-1.65 mg/L
Johnston	mg/L	1.3	0.020 ²	µg/L	15.0	5.0 ²	0 of 20 samples	Corrosion of home plumbing	58.6	51.4-70.1 µg/L	9.6	6.3-14.4 µg/L	0.28 mg/L	0.19-0.42 mg/L
New Virginia	mg/L	1.3	<0.020 ²	µg/L	15.0	<6.0 ²	0 of 5 samples	Corrosion of home plumbing	78.3	67.6-98.6 µg/L	6.7	1.4 µg/L	0.53 mg/L	0.02-0.79 mg/L
Norwalk	mg/L	1.3	0.050	µg/L	15.0	0.005	0 of 20 samples ¹	Corrosion of home plumbing	43.2	35.0-48.0 µg/L	4.3	ND-9.0 µg/L	0.81 mg/L	0.77-0.83 mg/L
Pleasant Hill	mg/L	1.3	0.000 ¹	µg/L	15.0	5.0 ¹	0 of 20 samples ²	Corrosion of home plumbing	52.1	45.0-60.0 µg/L	3.3	ND-7.0 µg/L	0.22 mg/L	0.13-0.29 mg/L
Polk Co. Rural WD #1	mg/L	1.3	0.012 ¹	µg/L	15.0	0.0 ¹	0 of 10 samples ²	Corrosion of home plumbing	58.8	53.0-65.0 µg/L	11.0	ND-18.0 µg/L	0.36 mg/L	0.13-0.51 mg/L
Regency Manor	mg/L	1.3	0.020 ²	µg/L	15.0	6.0 ²	0 of 20 samples	Corrosion of home plumbing	36.0	27.1-48.0 µg/L	6.8	7.0-12.0 µg/L	0.22 mg/L	0.10-0.66 mg/L
SE Polk Rural Water- North	mg/L	1.3	0.042 ²	µg/L	15.0	<5.0 ²	1 of 21 samples	Corrosion of home plumbing	89.6	80.0-94.0 µg/L	12.3	10.2-14.4 µg/L	0.71 mg/L	0.18-1.69 mg/L
SE Polk Rural Water- South	mg/L	1.3	0.042 ²	µg/L	15.0	<5.0 ²	1 of 21 samples	Corrosion of home plumbing	51.5	45.0-66.0 µg/L	10.9	7.8-14.9 µg/L	0.41 mg/L	0.09-1.78 mg/L
St. Charles	mg/L	1.3	0.010 ¹	µg/L	15.0	5.0 ¹	0 of 11 samples ²	Corrosion of home plumbing	84.8	71.2-97.4 µg/L	12.5	3.0-17.0 µg/L	1.193 mg/L	0.41-1.40 mg/L
Urbandale	mg/L	1.3	<0.020 ²	µg/L	15.0	6.3 ²	0 of 30 samples	Corrosion of home plumbing	66.3	36.0-71.0 µg/L	7.8	7.0-16.0 µg/L	0.65 mg/L	0.49-0.82 mg/L
Warren Water Dist.- Fleur	mg/L	1.3	<0.020	µg/L	15.0	<6.0	0 of 20 samples ²	Corrosion of home plumbing	60.1	69.0-94.8 µg/L	2.8	8.3-16.7 µg/L	0.69 mg/L	0.10-1.40 mg/L
Warren Water Dist.- Maffitt	mg/L	1.3	<0.020	µg/L	15.0	<6.0	0 of 20 samples ²	Corrosion of home plumbing	57.3	53.5-75.5 µg/L	3.6	4.75-13.7 µg/L	0.69 mg/L	0.10-1.40 mg/L
Waukee	mg/L	1.3	0.024 ²	µg/L	15.0	8.0 ²	1 of 21 samples	Corrosion of home plumbing	53.5	44.0-63.0 µg/L	6.8	6.0-8.0 µg/L	0.6 mg/L	0.36-0.77 mg/L
Windsor Heights	mg/L	1.3	0.022 ¹	µg/L	15.0	<6.0 ¹	0 of 52 samples ²	Corrosion of home plumbing	46.6	29.0-54.0 µg/L	14.0	9.5-18.0 µg/L	0.6 mg/L	0.51-0.68 mg/L
Xenia Rural Water	mg/L	1.3	<0.030 ¹	µg/L	15.0	<5.0 ¹	0 of 20 samples ²	Corrosion of home plumbing	106.9	51.8-163 µg/L	37.6	20-55.9 µg/L	1.9 mg/L	1.38-2.31 mg/L

NOTE: The EPA requires monitoring of over 80 drinking water contaminants. Those listed above are the only contaminants detected in your drinking water. For a complete list or for more information about contaminants, please contact Des Moines Water Works or your local water utility. Contact information for each water utility is listed on the back of this publication.

* 90% of samples must be below Action Level

¹ 2002 data

² 2003 data

Distribution Violations

The following utilities had distribution violations in 2004. The specifics of each violation and corrective actions are provided in detail. If you have any questions, please contact the utility.

SE Polk Rural Water- North, St. Charles, and Xenia Rural Water

Contaminant Violation: Total Trihalomethanes (THMs). Trihalomethanes (THMs) are a class of organic compounds formed when chlorine reacts with naturally-occurring organic matter found in source water. The health effects associated with prolonged exposure to high levels of THMs include problems with liver, kidneys, or central nervous system, and an increased risk of cancer. Due to enhanced

Environmental Protection Agency (EPA) regulations, testing results received in 2004 showed that all three systems had exceeded the standard or maximum contaminant level (MCL), for total trihalomethanes. The standard for total trihalomethanes is 0.080 mg/L. The average level of total trihalomethanes over the last year for SE Polk-North was 0.0896 mg/L (violation occurred in the 4th quarter), for St. Charles was .0848 mg/L (violation occurred in the 4th quarter), and for Xenia was 0.1069 mg/L (violations occurred in the 3rd and 4th quarters).

Corrective Action: Public education and increased monitoring of the amount of chlorine added to the water at the entrance to the SE Polk, St. Charles, and Xenia systems.

Cryptosporidium

Cryptosporidium is a microscopic organism found in rivers and streams that can cause diarrhea, fever and gastrointestinal distress if ingested. It finds its way into the watershed through animal and human wastes.

Cryptosporidium is rarely found in the rivers from which we draw water and is effectively eliminated by a treatment process that includes sedimentation, filtration, and disinfection.

Cryptosporidium has **NEVER** been found in your drinking water.