

2010 WATER QUALITY RESULTS

Water Treatment Plant Monitoring

Before water can be delivered to your home, it must first be analyzed by certified laboratories at Des Moines Water Works' Fleur Drive Plant and at the University of Iowa Hygienic Laboratory in Iowa City. Results for 2010 in this report include samples taken as water leaves Des Moines Water Works' two treatment plants and from samples obtained from the various water distribution systems supplied with water by Des Moines Water Works. The L.D. McMullen Water Treatment Facility at Macfitt Reservoir serves southwest Des Moines, parts of the Xenia and Warren Rural Water Systems, Waukee and parts of West Des Moines, Clive, and Urbandale west of I-35. All other areas receive water from the Fleur Drive Plant. Treated drinking water is tested for the following parameters:

- **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.

Definitions for terms and measure units can be found on the back page.

2010 Lab Test RESULTS		Fleur Drive Treatment Plant		L.D. McMullen Water Treatment Facility		SOURCE OF CONTAMINANT	
YEAR TESTED	MCL	MCLG	LEVEL FOUND	LEVEL FOUND	RANGE OF DETECTIONS	RANGE OF DETECTIONS	
WATER CLARITY							
Turbidity (NTU)	TT	N/A	0.4	0.02-0.13	0.04-0.08	0.04-0.08	Soil runoff
INORGANIC SUBSTANCES							
Nitrate as Nitrogen (mg/L)	10	10	6.38	2.78-6.38	4.62-7.11	4.62-7.11	Runoff from fertilizer tanks; sewage; erosion of natural deposits
Fluoride (mg/L)	4	4	1.26	0.85-1.26	0.31-1.23	0.31-1.23	Additive for strong teeth; erosion of natural deposits; fertilizer
Sodium (mg/L)	N/A	N/A	12.6	N/A	N/A	N/A	Erosion of natural deposits
ORGANIC SUBSTANCES							
Atrazine (ug/L)	3	3	<0.0001	N/A	N/A	N/A	Agriculture runoff
cis-1,2-Dichloroethylene (ppb)	70	70	.60	0-1	N/A	N/A	Discharge from industrial chemical factories
RADIOACTIVE SUBSTANCES							
Alpha Emitters (pCi/L)	15	0	1.6	N/A	N/A	N/A	Erosion of natural deposits

Total Organic Carbon RESULTS			
Treatment Plant	Year Tested	Annual Removal Ratio	Minimum Removal Requirement
Fleur Drive Plant	2010	1.32	1
McMullen Facility	2010	1.86	1

2010 Lab Test RESULTS		Louise P. Moon Well		L.D. McMullen Plant Well		Ankeny Well #1		SOURCE OF CONTAMINANT	
PARAMETER	YEAR TESTED	MCL	LEVEL FOUND	LEVEL FOUND	RANGE OF DETECTIONS	LEVEL FOUND	RANGE OF DETECTIONS	LEVEL FOUND	
Alpha Emitters (pCi/L)	2010	15	0	N/A	N/A	N/A	N/A	N/A	Erosion of natural deposits
Arsenic (ug/L)	2010	10	2	N/A	N/A	2.2	N/A	2	Erosion of natural deposits
Atrazine (ug/L)	2010	3	0.2	N/A	N/A	0.1	N/A	0.1	Runoff from fertilizer
Combined Radium (pCi/L)	2010	15	0	N/A	N/A	1.6	N/A	1.6	Discharge from rubber and chemical factories
Di(2-ethylhexyl)phthalate (ug/L)	2010	6	0	N/A	N/A	0.6	N/A	N/A	Discharge from rubber and chemical factories
Fluoride (mg/L)	2010	4	4	1.45	N/A	--	N/A	--	Water additive which promotes strong teeth; erosion of natural deposits
Nitrate (as N) (mg/L)	2010	10	6.72	4.63-6.72	6.06	4.23-6.06	1.71-3.85	3.85	Runoff from fertilizer; leaching from septic tanks; sewage; erosion of natural deposits
Sodium (mg/L)	2010	N/A	28	N/A	15	N/A	N/A	20.3	Erosion of natural deposits

DES MOINES WATER WORKS AND THE CITY OF ANKENY

operate wells known as an Aquifer Storage and Recovery (ASR). Treated drinking water is injected into the well during cold-weather months, and recovered for use during warm-weather months. Testing data unique to this water can be seen on the chart to the left.

Distribution System Monitoring

Once the water leaves the water treatment facilities, it is regularly monitored throughout the numerous distribution systems served by Des Moines Water Works for disinfectant, disinfectant byproducts, bacteria, lead and copper. The table below shows the results of this monitoring.

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. Des Moines Water Works 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 are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink>.

2010 DISTRIBUTION RESULTS	Total Trihalomethanes (ug/L)		Halogenated Acids (ug/L)		Lead (ug/L)		Copper (mg/L)		Coliform Bacteria (positive)		Chlorine Disinfectant (mg/L)	
	Level Found	Range of Detections	Level Found	Range of Detections	Level Found	Range of Detections	Level Found	Range of Detections	Monthly Samples	Positive Samples	Running Annual Average	Range
Des Moines	35	10-72	6	ND-14	ND	ND	ND	ND-0.03	150	12	0.9	0.74-1.12
Ankeny	43	21-46	8	ND-14	ND	ND	ND	ND	40	12	.8	0.39-1.12
Ankeny ASR	50	ND-55	5	ND-11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Berwick	49	27-73	9	7-12	ND	ND	0.06	ND-0.12	1	0	0.7	0.43-0.91
Bondurant	44	33-65	14	9-26	3	ND-3	0.01	ND-0.03	6	1	2.4	2.1-2.7
Clive	46	23-72	10	7-15	ND	ND-69	0.02	ND-0.03	15	0	0.8	0.29-1.22
Gumming	63	N/A	8	N/A	75	ND-22	0.02	ND-0.03	1	0	0.59	0.35-0.89
East Dallas Water	30	N/A	N/A	N/A	7	ND-26	ND	ND	1	0	1.87	0.77-2.2
Earlham	20	14-30	5	ND-89	ND	ND	ND	ND-0.25	2	0	2.2	1.6-2.78
Johnston	50	27-79	12	9-22	ND	ND-11	0.02	ND-0.03	15	0	0.6	0.07-1.22
New Virginia	42	23-66	14	9-21	ND	ND-10	ND-5	ND-0.03	1	0	1.8	1.47-1.92
Norwalk	59	46-67	13	9-17	ND	ND	ND	ND	12	1	0.9	0.11-1.07
Polk Co. Rural Water #1	44	22-69	10	6-3	ND	ND	ND	ND-0.03	2	0	0.8	0.23-1.06
SE Polk Rural Water #3	48	27-73	11	7-4	ND	ND	ND	ND-0.04	10	0	2.76*	0.45-3.38
Urbandale	48	22-80	10	7-16	ND	ND-12	ND	ND-0.03	40	0	0.9	0.46-1.27
Warren Water District	33	13-66	8	10-18	ND	ND-31	ND	ND-0.03	16	0	1.9*	3.1
Waukee	58	42-75	10	9-11	7	ND-12	ND	ND-0.06	9	0	0.8	0.26-1.06
Xenia Rural Water District	34	10-70	14	8-25	11	ND-23	0.05	ND-0.19	15	0	2.8	0.8-3.8

* Includes Windsor Heights & Pleasant Hill. * One sample tested positive for total coliforms. Repeat samples indicated coliform bacteria were not present, and the water was determined to be safe for consumption. * Includes water supplied to Alleman & Runnels. * A chlorine record keeping violation was received for the period of 7/01/10 to 7/31/10. * A chlorine record keeping violation was received for the period of 4/01/10 to 4/30/10.

