



**West Des Moines  
2008 WATER QUALITY REPORT**

## West Des Moines Drinking Water Sources

West Des Moines Water Works obtains a portion of its water from 19 shallow wells (all between 40 and 50 feet deep) that draw water from the Raccoon River Alluvial Aquifer. Water is also obtained from three wells drilled into the much deeper Jordan Aquifer (2,500 feet deep). In addition, some West Des Moines water is purchased from the Des Moines Water Works (DMWW). This is treated and purified water from the Raccoon and Des Moines Rivers, which is blended with treated water from the West Des Moines Water Works. Approximately 5000 West Des Moines Water Works customers (see map) receive their water solely from the Des Moines Water Works. Des Moines Water Works Source Water Assessment (SWA) identifies contaminants having an impact on the Raccoon and Des Moines River watersheds. To obtain a copy of the SWA, visit [www.dmww.com](http://www.dmww.com) or call (515) 222-3460 to request a copy. The lab test results for both utilities are listed in this report.

The Iowa Department of Natural Resources (IDNR) has determined the Raccoon River Alluvial Aquifer to be highly susceptible to contamination because the characteristics of the aquifer and overlying materials allow contaminants to move through the aquifer fairly quickly. The alluvial wells will be most susceptible to dry cleaners, gas stations, industrial sites and wastewater dischargers. It is important to note that no contaminants resulting from these activities have been found in your drinking water.

The IDNR has also determined that the Jordan Aquifer is not susceptible to contamination because the characteristics of the aquifer and overlying materials prevent easy access of contaminants to the aquifer. The Jordan Aquifer will not be susceptible to most contaminant sources except through pathways to the aquifer, such as abandoned or poorly maintained wells.

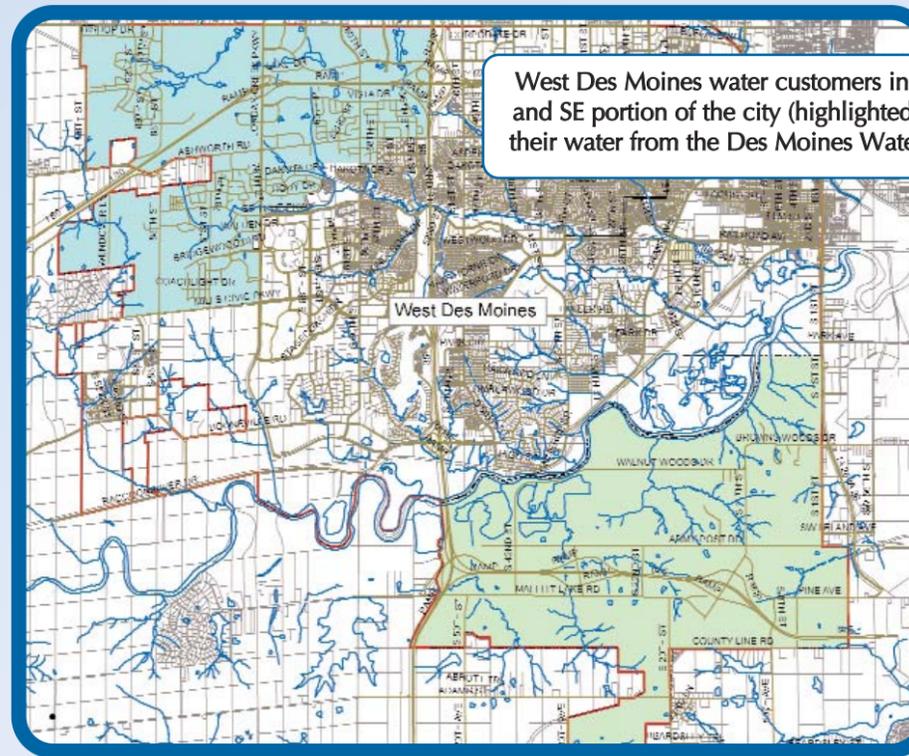
## Regulatory Information

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or throughout the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals and human activity.

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. 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 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 (1-800-426-4791).



## 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.

**Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban stormwater 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 stormwater 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 stormwater runoff, and septic systems.

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

## Interpreting the Lab Data

Testing for some contaminants is not required on an annual basis; for this reason, some results from previous year's testing are also included in the table.

The **Level Found** can be the highest amount found in the water or the average of all samples tested, depending on the regulation for the substance. If multiple samples were tested in 2007, the lowest and highest detected values are listed under **Range of Detections**.

**ND** is not detected. **NA** is not applicable. **NTU** is Nephelometric Turbidity Units. The EPA requires DMWW to employ certain treatment processes to reduce turbidity and eliminate microorganisms. Turbidity must never exceed 1 NTU, and must be less than 0.3 NTU 95% of the time.

Regulated substances have **Maximum Contaminant Levels (MCLs)** set by EPA. This is the highest level of the substance allowed in drinking water. Some substances also have **MCL Goals (MCLGs)**. This is the level of a substance 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. Monitoring also occurs for some unregulated substances that do not have established MCLs or MCLGs. EPA evaluates data from this monitoring when assessing future drinking water regulations. The MCL for lead and copper is known as the **Action Level (AL)**. This is the concentration of a substance which, when exceeded, triggers treatment or other requirements

which a water system must follow. Monitoring for lead and copper is required only once every three years. The **Maximum Residual Disinfectant Level (MRDL)** is 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. The **MRDL Goal (MRDLG)** is the level of disinfectant where there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

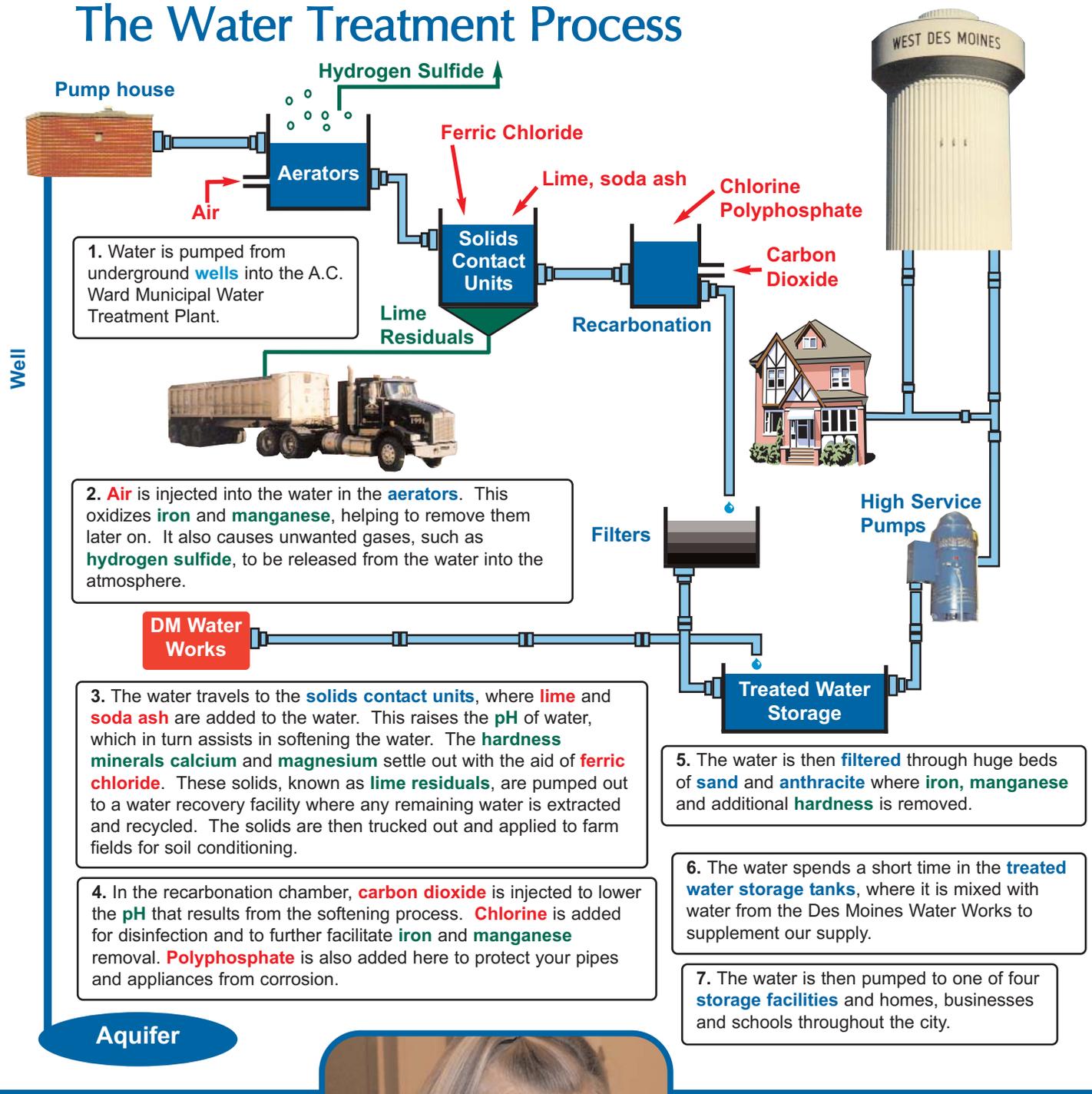
**LEAD:** If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. West Des Moines Water Works is responsible for providing 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 the 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>.

**Nitrate in Drinking Water:** Nitrate in drinking water above 10 parts per million is a health risk for infants of less than six months of age. High nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. The Des Moines Water Works' treated water has not exceeded 10 ppm since their nitrate removal facility was implemented in 1992. If you are caring for an infant, you should ask for advice from your health care provider concerning this issue. We recommend that you observe reports in the news media regarding the nitrate levels at the Des Moines Water Works.

*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 (1-800-426-4791).*

Water Treatment Plant	Total Trihalomethanes		Total Haloacetic Acids		Atrazine		Turbidity		Nitrate as Nitrogen		Fluoride		Sodium		Sulfate		Chlorine		Combined Radium		Copper		Lead		Total Organic Carbon Removal Ratio		
	Level Found	Range of Detections	Level Found	Range of Detections	Level Found	Range of Detections	Level Found	Range of Detections	Level Found	Range of Detections	Level Found	Range of Detections	Level Found	Range of Detections	Level Found	Range of Detections	Level Found	Range of Detections	Level Found	Range of Detections	Level Found	Range of Detections	Level Found	Range of Detections	Annual Removal Ratio	Minimum Removal Requirement	
West Des Moines A.C. Ward Municipal	3.88	NA-5.4	NA	NA	NA	NA	NA	NA	1.3	ND-1.3	0.97	NA	160	NA	300	NA	1.3	0.07-2.58	1.3	NA	0 out of 30 samples above AL	ND-0.24	1 out of 30 samples above AL	ND-34	NA	NA	
Des Moines Fleur Drive	48	31-59	7.5	6-9	ND	ND	<0.3	0.03-0.11	9.6	1.5-9.6	1.33	0.19-1.33	47	2.6-47	71	35-71	0.65	0.55-0.75	0.7 2003	NA	NA	NA	NA	NA	NA	2.35	1
Des Moines McMullen	33	24-48	8.8	7-10	0.1	NA	<0.3	0.04-0.12	10	0.58-10	1.35	0.17-1.35	14	3.1-14	54	21-54	0.65	0.55-0.75	ND	ND	NA	NA	NA	NA	1.68	1	

# The Water Treatment Process



## Cryptosporidium

Cryptosporidium is a microscopic organism found in rivers and streams that can cause diarrhea, fever and gastrointestinal symptoms if ingested. It finds its way into the watershed through animal wastes. Cryptosporidium is effectively eliminated by a treatment process that includes filtration, sedimentation and disinfection.

It is important to note that cryptosporidium has NEVER been found in your drinking water.



## Did You Know?

West Des Moines' water hardness averages about 9 grains per gallon. This is important to know when installing and adjusting settings on home treatment devices, such as softeners.

## Contact Information

For more information on this Water Quality Report or Board of Trustees meetings, please call:  
 West Des Moines Water Works  
 4200 Mills Civic Parkway, Suite 1D  
 West Des Moines, IA 50265  
 Phone: (515) 222-3510  
 email: [waterworks@wdm-ia.com](mailto:waterworks@wdm-ia.com)  
 A wealth of drinking water information is also available at:  
[www.wdmww.com](http://www.wdmww.com)  
[www.epa.gov/safewater](http://www.epa.gov/safewater)  
[www.iowadnr.com/water/index.html](http://www.iowadnr.com/water/index.html)