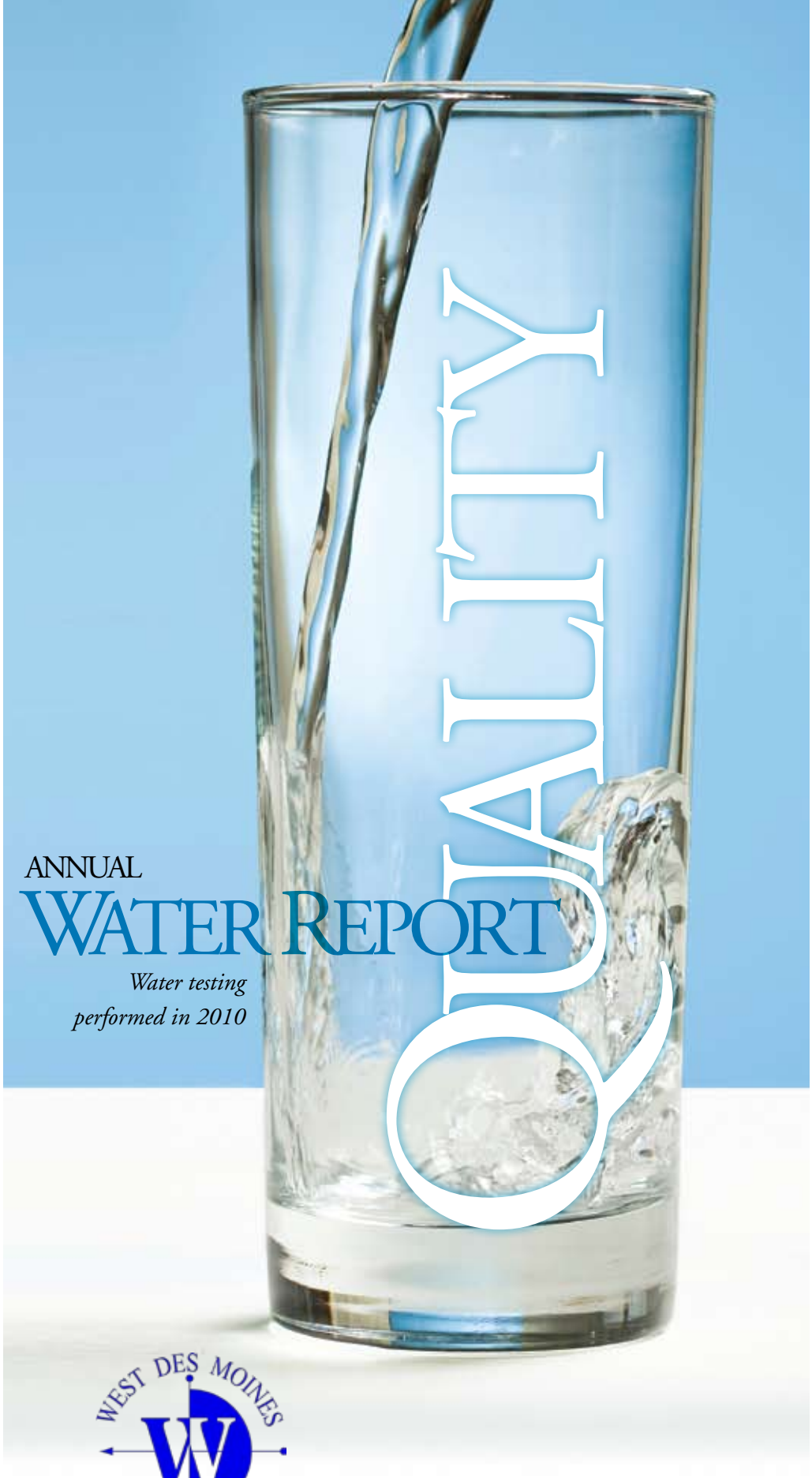


ANNUAL WATER REPORT

Water testing performed in 2010

QUALITY

WEST DES MOINES WATER WORKS

PWS ID#: IA7785007

Quality First

Once again we are proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2010. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Thank you for allowing us to continue providing you and your family with high-quality drinking water.

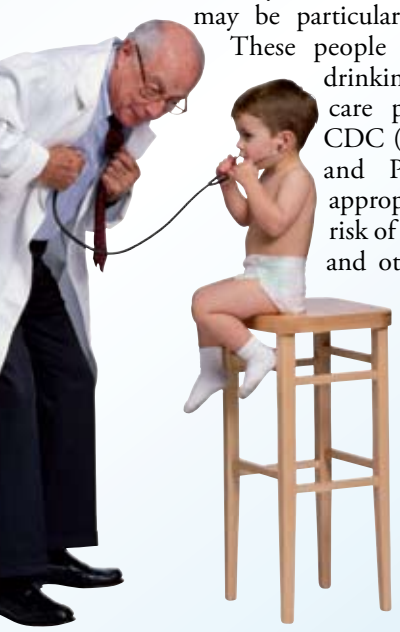
We encourage you to share your thoughts with us on the information contained in this report. Should you ever have any questions or concerns, we are always available to assist you.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The West Des Moines Water Works Board of Trustees meets at 4 p.m. on the third Monday of each month. Meetings are held at the A.C. Ward Municipal Water Treatment Plant, 1505 Railroad Avenue, West Des Moines, Iowa.

Important Health Information

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. The 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 www.epa.gov/drink/hotline/.



Lead and Drinking Water

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. We are responsible for providing high-quality drinking water, but we 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 www.epa.gov/safewater/lead.

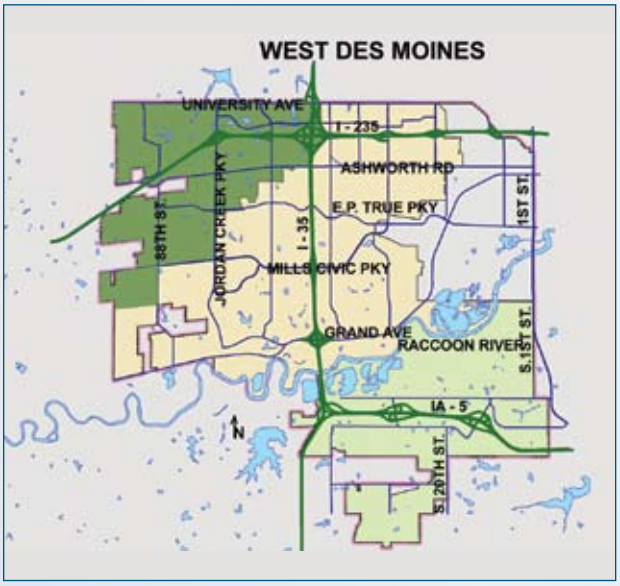
Water Conservation

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks (if you are allowed access). Simply turn off all taps and water using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

Why Do I Get This Report Each Year?

Community water system operators are required by Federal law to provide their customers an annual water quality report. The report helps people make informed choices about the water they drink. It lets people know what contaminants, if any, are in their drinking water and how these contaminants may affect their health. It also gives the system operators a chance to tell customers what it takes to deliver safe drinking water.



West Des Moines water customers in the NW and SE portion of the city receive their water from the Des Moines Water Works.

Where Does My Water Come From?

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 4,500 West Des Moines Water Works customers (see map) receive their water solely from the Des Moines Water Works.

Source Water Assessment

A Source Water Assessment (SWA) is an evaluation by the Iowa Department of Natural Resources (IDNR) of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility to contamination by the identified potential sources.

West Des Moines Water Works' SWA 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 SWA 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.

Des Moines Water Works' Source Water Assessment (DMWW SWA) identifies contaminants having an impact on the Raccoon and Des Moines River watersheds. To obtain a copy of the DMWW SWA, visit www.dmww.com or call (515) 222-3460.

Questions?

For more information about this report, or for any questions relating to your drinking water, please call Mitch Pinkerton, Water Production Manager, at (515) 222-3465.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. 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.

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 through the ground, it dissolves naturally occurring minerals, in some cases, radioactive material, and 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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 may also come from gas stations, urban stormwater runoff, and septic systems;

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

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

What's a Cross-Connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed all industrial, commercial, and institutional facilities in the service area to make sure that all potential cross-connections are identified and eliminated or protected by a backflow preventer. Regulations require that each backflow preventer be inspected and tested annually to make sure that it is providing maximum protection.

For more information, review the Cross-Connection Control Manual from the U.S. EPA's Web site at http://water.epa.gov/infrastructure/drinkingwater/pws/crossconnectioncontrol/index.cfm. You can also call the Safe Drinking Water Hotline at (800) 426-4791.

Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state allows us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

Des Moines Water Works operates two wells known as Aquifer Storage and Recovery (ASR) Wells. Treated drinking water is injected into the wells during cold-weather months and recovered for use during warm-weather months. Year 2010 testing data unique to this water can be seen below.

REGULATED SUBSTANCES

				West Des Moines Water Works A.C. Ward Municipal Water Treatment Plant		Des Moines Water Works McMullen Plant			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2008	15	0	2.1	NA	NA	NA	No	Erosion of natural deposits
Arsenic (ppb)	2010	10	0	NA	NA	NA	NA	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Atrazine (ppb)	2010	3	3	NA	NA	ND	NA	No	Runoff from herbicide used on row crops
Chlorine (ppm)	2010	[4]	[4]	1	0.1–2	NA	NA	No	Water additive used to control microbes
cis-1,2 Dichloroethylene (ppb)	2010	70	70	NA	NA	NA	NA	No	Discharge from industrial chemical factories
Di(2-ethylhexyl) Phthalate (ppb)	2010	6	0	NA	NA	NA	NA	No	Discharge from rubber and chemical factories
Fluoride (ppm)	2010	4	4	1.17	NA	1.23	0.31–1.23	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2010	60	NA	1.38	ND–10	9.81[1]	6–19[1]	No	By-product of drinking water disinfection
Nitrate[2] (ppm)	2010	10	10	0.6	0.6–0.6	7.11	4.62–7.11	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2010	80	NA	37.5	19–65	47.94[1]	25–67[1]	No	By-product of drinking water disinfection
Total Coliform Bacteria[3] (% positive samples)	2010	5% of monthly samples are positive	0	1.6% (1 of 63 samples)	NA	NA	NA	No	Naturally present in the environment
Total Organic Carbon [TOC][4] (removal ratio)	2010	TT	NA	NA	NA	1.86	NA	No	Naturally present in the environment
Turbidity[5] (NTU)	2010	TT	NA	NA	NA	0.04	0.08–0.04	No	Soil runoff

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	Des Moines Water Works Fleur Drive Plant AMOUNT DETECTED	Des Moines Water Works Fleur Drive Plant RANGE LOW-HIGH	LP Moon ASR Well AMOUNT DETECTED	LP Moon ASR Well RANGE LOW-HIGH	McMullen Plant ASR Well AMOUNT DETECTED	McMullen Plant ASR Well RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2008	15	0	1.6	NA	NA	NA	NA	NA	No	Erosion of natural deposits
Arsenic (ppb)	2010	10	0	NA	NA	2	NA	NA	NA	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Atrazine (ppb)	2010	3	3	ND	NA	0.2	NA	0.10	NA	No	Runoff from herbicide used on row crops
Chlorine (ppm)	2010	[4]	[4]	NA	NA	NA	NA	NA	NA	No	Water additive used to control microbes
cis-1,2 Dichloroethylene (ppb)	2010	70	70	0.60	ND–1	NA	NA	NA	NA	No	Discharge from industrial chemical factories
Di(2-ethylhexyl) Phthalate (ppb)	2010	6	0	NA	NA	NA	NA	0.6	NA	No	Discharge from rubber and chemical factories
Fluoride (ppm)	2010	4	4	1.26	0.85–1.26	1.45	NA	1.17	NA	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2010	60	NA	9.81[1]	6–19[1]	NA	NA	NA	NA	No	By-product of drinking water disinfection
Nitrate[2] (ppm)	2010	10	10	6.38	2.78–6.38	6.72	4.63–6.72	6.06	4.23–6.06	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2010	80	NA	47.94[1]	25–67[1]	NA	NA	NA	NA	No	By-product of drinking water disinfection
Total Coliform Bacteria[3] (% positive samples)	2010	5% of monthly samples are positive	0	NA	NA	NA	NA	NA	NA	No	Naturally present in the environment
Total Organic Carbon [TOC][4] (removal ratio)	2010	TT	NA	1.32	NA	NA	NA	NA	NA	No	Naturally present in the environment
Turbidity[5] (NTU)	2010	TT	NA	0.14	0.02–0.14	NA	NA	NA	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	RANGE LOW-HIGH	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2010	1.3	1.3	0.03	ND – 0.06	0/32	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2010	15	0	4	ND–14	0/32	No	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED SUBSTANCES[6]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	West Des Moines Water Works A.C. Ward Municipal Water Treatment Plant AMOUNT DETECTED	West Des Moines Water Works A.C. Ward Municipal Water Treatment Plant RANGE LOW-HIGH	Des Moines Water Works McMullen Plant AMOUNT DETECTED	Des Moines Water Works McMullen Plant RANGE LOW-HIGH	Des Moines Water Works Fleur Drive Plant AMOUNT DETECTED	Des Moines Water Works Fleur Drive Plant RANGE LOW-HIGH	LP Moon ASR Well AMOUNT DETECTED	LP Moon ASR Well RANGE LOW-HIGH	McMullen Plant ASR Well AMOUNT DETECTED	McMullen Plant ASR Well RANGE LOW-HIGH	TYPICAL SOURCE
Sodium (ppm)	2009	200	NA	7.85[7]	NA[7]	12.6[7]	NA[7]	28[7]	NA	15[7]	NA	Erosion of natural deposits

[1] Water samples tested were from West Des Moines' distribution system.

[2] 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 advice from your health care provider.

[3] One monthly sample tested positive for total coliform. Repeat samples indicated coliform bacteria were not present.

[4] The value reported under Amount Detected for TOC is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of the TOC removal requirements.

[5] Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of water quality and the effectiveness of disinfectants.

[6] Unregulated contaminants are those for which the U.S. EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist U.S. EPA in determining their occurrence in drinking water and whether future regulation is warranted.

[7] Sampled in 2010.

Definitions

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

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 a 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 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.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

removal ratio: A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.