



2011 Water Quality Report

We work around the clock to ensure your drinking water is of the highest quality. This report illustrates the scrutiny water undergoes before we will allow it to leave our facility.

Serving the City of Cedar Rapids, the City of Robins and the Glenbrook Cove Subdivision of Marion





The Cedar Rapids Water Division (CRWD) is charged with delivering the highest quality water to every home, business and industry. In order to meet this goal, we are continuously monitoring water quality and reviewing new technologies to ensure the best quality product for your money.

Delivering Clean, Safe Water to Your Home

The information in this report summarizes the results of our water monitoring program as required by the Environmental Protection Agency (EPA). Many of the analyses are required by the Safe Drinking Water Act and other regulations.

However, in order to feel confident that the water we produce and distribute is of the best quality possible, we monitor for several constituents above and beyond the basic requirements. If you have any questions about the information in this report, please feel free to call us at 319-286-5900.



Our Commitment to You



Investing in Technology to Ensure the Safety of Our Water Supply

The ability to maintain the safety and quality of our water supply depends upon operations staff quickly identifying slight changes in our treatment process. The Cedar Rapids Water Division recently upgraded several online metering devices and reporting capabilities to ensure operations staff has the most effective tools and best information available to treat the water. Currently, chlorine, turbidity, pH and pumping volumes are monitored continuously at both water treatment facilities. The Water Division is also investigating the ability to expand this monitoring capability to nitrate concentrations. Continuous online monitoring is the most consistent and cost-effective approach to maintaining a safe, high-quality water supply throughout the entire treatment process.

Using Resources Wisely

The Cedar Rapids Water Division tracks main breaks as they happen to assist in identifying sections of main that need repair or replacement. The Division attempts to coordinate main replacement activities with other departments and utilities, such as streets, cable, gas and electric to keep construction work and costs at a minimum. These coordinated efforts also help to minimize the inconvenience to property owners. Detailed mapping and record keeping also helps reduce unnecessary or repeat digging of streets and sidewalks. While these efforts do not eliminate the occurrence of water main breaks in the system, they are important factors in maintaining the integrity of 660 miles of pipe infrastructure in our distribution system. Replacing water mains, hydrants or valves is an expensive, but crucial, investment to maintain water quality and safety throughout the entire system.

Educational Information

Nitrate

A dissolved form of nitrogen found in fertilizers and sewage by-products that may leach into ground water and other water sources. Nitrates occur naturally in some waters. Over time, nitrates can accumulate in aquifers and contaminate ground water.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants 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, ask for advice from your healthcare provider.

Samples of Cedar Rapids drinking water did not exceed 10 ppm of nitrates in 2011.

Lead

Our drinking water contains little or no lead when it leaves our treatment plant. However, lead can leach into the water during overnight contact with the lead solder and brass faucets in some homes. Because of that, the CRWD collects and analyzes special samples quarterly from area homes to more frequently monitor the distribution system. Our tests show that most homes are at, or well below, the 15 parts per billion (ppb) – or 15 micrograms per liter of water – standard set by the Environmental Protection Agency (EPA) for annual compliance 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. The CRWD 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 and 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.

The following state-approved laboratories can test your water for lead:

State Hygienic Laboratory Oakdale, IA 800-421-4692	TestAmerica Cedar Falls, IA 319-277-2401	Keystone Laboratory, Inc. Newton, IA 641-792-8451
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Additional information is available from the Safe Drinking Water Hotline, 800-426-4791.

Questions?

If you have questions or concerns about our water quality or this report, we invite you to attend one of two upcoming public meetings:

Saturday, June 2, from 7:30 a.m. - 12:30 p.m., at the downtown Farmers' Market booth in Greene Square Park (400 4th Ave. SE)

Saturday, July 21, from 7:30 a.m. - 12:30 p.m., at the downtown Farmers' Market booth in Greene Square Park (400 4th Ave. SE)

You are also welcome to bring questions to any of the regular city council meetings, which are held at the new City Hall Building at 101 1st St. SE. These meetings are announced in The Gazette and a schedule of future meetings can be viewed at www.CityofCR.com.

For more information on this Water Quality Report or for copies of our monitoring reports (CRWD's or USGS), contact the Cedar Rapids Water Department at 319-286-5900.

At-Risk Populations

It is important to be aware that some people may be more vulnerable than the general population to contaminants in drinking water. Immuno-compromised persons—those undergoing cancer chemotherapy or organ transplants, the elderly, infants or people with HIV/AIDS or other immune system disorders—can be especially susceptible to infections. We ask anyone who is immuno-compromised to seek advice about drinking water from their healthcare providers. Guidelines from the EPA and Centers for Disease Control on appropriate steps to lessen the risk of infection by microbial contaminants are available from the National Safe Drinking Water Hotline at 800-426-4791.

Water Value

Cedar Rapids residents enjoy water rates that are among the lowest in the state.

\$3.43 Buys You 1,000 Gallons of Clean Water:

Engineering & Administrative Support \$0.28

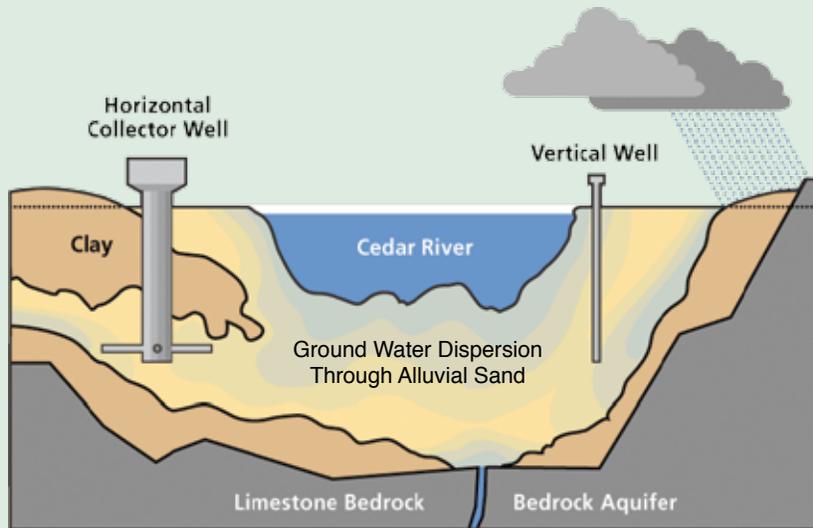
Water Source (Wells) \$0.41

Meter & Customer Service \$0.43

Distribution & Storage \$0.85

Water Treatment \$1.46





Where Our Water Comes From

The City of Cedar Rapids obtains its drinking water supplies from shallow vertical and collector wells constructed in the sand and gravel deposits along the Cedar River. Those deposits form an underground water-bearing layer called an alluvial aquifer. Because of continuous pumping of the City’s wells, most of the water in the aquifer is pulled from the river. The rest of the water is supplied as water percolates up from a deeper bedrock aquifer or down from the top of the ground.

Our drinking water from those wells benefits from natural filtration through the riverbank. This natural sand filtration has proven to be a beneficial pretreatment to water before it reaches the City’s two conventional lime-softening facilities.

into southern Minnesota. Source water assessment identifies potential sources of contamination to the water we use to treat for drinking water purposes. Although efforts are made on many fronts, farm-field run-off continues to be a primary concern and risk for contamination of our source water. We continue to actively monitor the watershed and have initiated a watershed protection program. (If you are interested in reviewing our source water assessment or any monitoring results, please contact the CRWD at 319-286-5900.)

How We Protect the Quality of Our Drinking Water

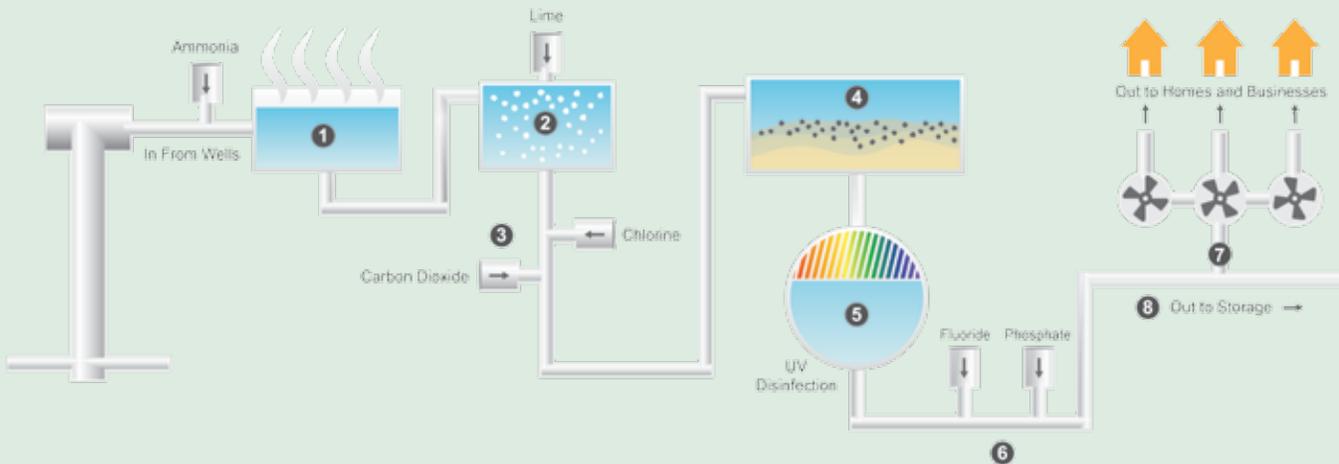
The Cedar Rapids Water Division (CRWD) continues to work with state and federal agencies to monitor and assess our watershed. The Cedar River watershed covers over 6,500 square miles upstream of Cedar Rapids and extends

How We Treat Our Water

Our treatment process involves a multi-barrier approach to protect our drinking water from the source to your tap. This includes source water monitoring, well-head protection, riverbank restoration, treatment processes of softening, filtration and disinfection, as well as distribution-system monitoring and maintenance.



Treatment Process Highlights



1. AERATION

Once water has been drawn from the wells into the City’s treatment plants, it undergoes aeration. Raw or untreated water is allowed to cascade down a series of trays, increasing the surface area of the water and promoting the exchange of gases. Aeration also removes undesirable gases such as radon. Aeration is similar to the natural process that occurs when a stream flows through rapids or over falls.

2. SOFTENING

The CRWD adds slaked lime to the water. This softens or reduces the minerals that typically make water “hard”. Excessive hardness increases soap use, deposits scale in water heaters and boilers, interferes with some industrial processes and sometimes gives water an unappealing taste and odor. Resulting lime residual materials are removed and applied to farmland as soil conditioner.

3. RECARBONATION & CHLORINATION

The CRWD lowers water pH by adding carbon dioxide and adds chlorine to disinfect the water. The chlorine helps ensure our water’s microbiological safety by killing disease-causing organisms. The CRWD also adds a trace amount of ammonia to help the disinfection process.

4. FILTRATION

Water is then passed through a sand and gravel filter bed, removing any remaining suspended matter.



5. UV DISINFECTION

Next, the water enters the ultraviolet (UV) light disinfection system where special lamps emit ultraviolet light into the water. The UV energy instantly damages the genetic material of any microorganisms in the water, eliminating their ability to reproduce and cause infection. Following UV disinfection, water passes through a contact tank where time is provided for the chlorine compound created in Step 3 to complete the disinfection process.



6. FLUORIDATION & PHOSPHATE ADDITION

After UV disinfection, the CRWD adds fluoride to promote children’s dental health. Phosphate is also added to chemically stabilize the water and lessen the possibility that lead will leach out of pipes and into tap water.

7. DISTRIBUTION

From here, finished water is pumped directly into the three principal water distribution systems that serve homes and businesses throughout the City.

8. RESERVES

Water not immediately consumed flows into storage tanks for use when demand exceeds plant pumpage. Water stored in elevated tanks helps stabilize pressure in the distribution system and serves as an emergency reserve for fire protection.

Water Quality Findings

This table summarizes required water quality monitoring results for regulated parameters that were detected in the 2011 calendar year. Results for tests we perform above and beyond the minimum requirements are indicated with an asterisk(*). A comprehensive report of all water quality testing is available from the Water Division.

WATER TREATMENT PLANTS - FINISHED WATER											
Inorganic Chemicals			J Ave. Water Plant				NW Water Plant				Source of Contaminant
	Units	MCL	MCLG	Max	Range	Average	MCLG	Max	Range	Average	
Nitrate*	mg/L	10	10	5.67	0.13 - 5.67	2.97	10	6.95	0.70 - 6.95	4.03	Run-off from fertilizer, leaching from septic tanks, sewage, erosion of natural deposits
Nitrite*	mg/L	1	1	0.04	0.00 - 0.04	0.01	1	0.05	0.00 - 0.05	0.01	Run-off from fertilizer, leaching from septic tanks, sewage, erosion of natural deposits
Fluoride	mg/L	4	4	1.00	0.18 - 1.00	0.66	4	1.03	0.17 - 1.03	0.71	Water additive which promotes strong teeth; erosion of natural deposits
Sodium*	mg/L	NA	NA	14.8	9.1 - 14.8	11.4	NA	14.1	8.3 - 14.1	10.7	Erosion of natural deposits, added to water during treatment process
Sulfate*	mg/L	NA	NA	33.1	25.0 - 33.1	28.3	NA	36	24.0 - 32.0	29.0	Erosion of natural deposits
Chloride*	mg/L	NA	NA	33.2	24.5 - 33.2	28.5	NA	32	23.4 - 32.0	27.5	Erosion of natural deposits; run-off, erosion
Arsenic*	µg/L	10	10	3.7	0.0 - 3.7	0.5	10	2.8	0.0 - 2.8	0.3	Erosion of natural deposits

Common Herbicides			J Ave. Water Plant				NW Water Plant			Source of Contaminant
	Units	MCL	MCLG	Max	Range	Average	Max	Range	Average	
Atrazine	µg/L	3	3	0.15	0.0 - 0.15	0.02	0.3	0.0 - 0.3	0.06	Run-off from fertilizer used on row crops
Metalachlor*	µg/L	Unregulated	Unregulated	ND	ND	ND	ND	ND	ND	Run-off from fertilizer used on row crops
Acetochlor*	µg/L	Unregulated	Unregulated	ND	ND	ND	ND	ND	ND	Run-off from fertilizer used on row crops
Desethyl Atrazine*	µg/L	Unregulated	Unregulated	ND	ND	ND	ND	ND	ND	Run-off from fertilizer used on row crops

Radiological			J Ave. Water Plant				NW Water Plant			Source of Contaminant
	Units	MCL	MCLG	Max	Range	Average	Max	Range	Average	
Radon*	pCi/L	300pCi/L	0pCi/L	51	26 - 51	40	32	19 - 32	25.5	Erosion of natural deposits
Combined Radium	pCi/L	5pCi/L	0pCi/L	1.3	0.0 - 1.3	0.65	ND	ND	ND	Erosion of natural deposits

TREATMENT TECHNIQUE INDICATORS												
Turbidity		J Ave. Water Plant				NW Water Plant				Source of Contaminant		
	MCL	Units	Max	Range	Average	Violation	Max	Range	Average		Violation	
Treatment technique requires that turbidity of combined filter effluent not exceed 1.0 NTU at any time	1.0	NTU	0.67	0.02 - 0.67	0.04	NO	0.71	0.03 - 0.71	0.07	NO	Soil run-off	
Treatment technique requires that no more than 5% of combined filter effluent turbidity samples exceed 0.3 NTU monthly	5%	NTU	% Samples > 0.3 NTU for the calendar year 2011		0.01%	NO	% Samples > 0.3 NTU for the calendar year 2011		0.02%	NO	Soil run-off	

Turbidity is an indicator of treatment filter performance and is regulated as a treatment technique.

Total Organic Carbon (TOC)		J Ave. Water Plant				NW Water Plant				Source of Contaminant
		Max	Range	Average	Violation	Max	Range	Average	Violation	
Treatment technique requires that the annual average of credits given for TOC removal be at least 1	Credits for TOC removal	3.53	0.58 - 3.53	2.19	NO	3.79	0.51 - 3.79	2.22	NO	Naturally present in the environment

DISTRIBUTION SYSTEM MONITORING											
Lead and Copper Rule		Units	Action Level (AL)	MCLG	Max	Range	90%	95%	Samples Exceeding AL	Violation	Source of Contaminant
Lead	µg/L	15	0	6.1	0.0 - 6.1	2.7	4.0	0	NO	Corrosion of household plumbing systems	
Copper	mg/L	1.3	1.3	0.06	0.0 - 0.06	0.04	0.04	0	NO	Corrosion of household plumbing systems	

Total Coliform Rule		Units	MCL	MCLG	Total # Samples Annually	Total # Positive Samples Annually	% Positive Samples Annually	Violation	Source of Contaminant
Bacteria Samples	%	Positive samples > 5% per month	0		1,264	3	0.24%	No	Naturally present in the environment





DISTRIBUTION SYSTEM MONITORING (Continued)

Disinfectant	MRDL	MRDLG	Max	Range	Average	Violation	Source of Contaminant
Total Chlorine Residual	4	4	3.3	3.1 - 3.3	3.2	NO	Water additive used to control microbial growth

Disinfection By-Products				J Ave. Plant Service Area				NW Plant Service Area				Source of Contaminant
	Units	MCL	MCLG	Max	Range	Average	Violation	Max	Range	Average	Violation	
Total Trihalomethanes (TTHM)	µg/L	80	NA	ND	ND	ND	NO	3.3	0.0 - 3.3	1.38	NO	By-product of chlorinating drinking water
Total Haloacetic Acids (HAA5)	µg/L	60	NA	ND	ND	ND	NO	6	0.0 - 6.0	0.38	NO	By-product of chlorinating drinking water

Source Water Monitoring: Source water assessment identifies potential sources of contamination to the water we use to treat for drinking water purposes. Although efforts are made on many fronts, farm-field run-off continues to be a primary concern and risk for contamination of our source water.

ENHANCED SURFACE WATER TREATMENT RULE (LT2ESWTR)

	J Ave. Water Plant				NW Water Plant				Source of Contaminant
	Max	Range	Average	Violation	Max	Range	Average	Violation	
Cryptosporidium	ND	ND	ND	NO	ND	ND	ND	NO	Human and animal fecal waste. CRWD collected and had analyzed a total of 104 (compliance) source water samples from August 2006 - August 2008. There were no detects in any of the analyzed samples. Quarterly sampling and analysis of source water samples since August 2008 have also revealed no detects of Cryptosporidium or Giardia.
Giardia	ND	ND	ND	NO	ND	ND	ND	NO	
E.coli	ND	ND	ND	NO	ND	ND	ND	NO	

UCMR2 (UNREGULATED CONTAMINANT MONITORING RULE)

	J Ave. Plant Nitrosamines						NW Plant Nitrosamines					
	N-nitroso-dimethyl amine (NDMA)	N-nitroso-methyl ethyl amine (NMEA)	N-nitroso-diethyl amine (NDEA)	N-nitroso-di-n-propylamine (NDPA)	N-nitroso-pyrrolidine (NPYR)	N-nitroso-di-n-butylamine (NDBA)	N-nitroso-dimethyl amine (NDMA)	N-nitroso-methyl ethyl amine (NMEA)	N-nitroso-diethyl amine (NDEA)	N-nitroso-di-n-propylamine (NDPA)	N-nitroso-pyrrolidine (NPYR)	N-nitroso-di-n-butylamine (NDBA)
11/10/09	0.0032	ND	ND	ND	ND	ND	0.0000	ND	ND	ND	ND	ND
2/9/10	0.0037	ND	ND	ND	ND	ND	0.0000	ND	ND	ND	ND	ND
5/11/10	0.0046	ND	ND	ND	ND	ND	0.0000	ND	ND	ND	ND	ND
8/10/10	0.0056	ND	ND	ND	ND	ND	0.0027	ND	ND	ND	ND	ND
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Method	EPA 521	EPA 521	EPA 521	EPA 521	EPA 521	EPA 521	EPA 521	EPA 521	EPA 521	EPA 521	EPA 521	EPA 521
	No Current MCL	No Current MCL	No Current MCL	No Current MCL	No Current MCL	No Current MCL	No Current MCL	No Current MCL	No Current MCL	No Current MCL	No Current MCL	No Current MCL

	J Ave. Distribution Area Nitrosamines						NW Distribution Area Nitrosamines					
	N-nitroso-dimethyl amine (NDMA)	N-nitroso-methyl ethyl amine (NMEA)	N-nitroso-diethyl amine (NDEA)	N-nitroso-di-n-propylamine (NDPA)	N-nitroso-pyrrolidine (NPYR)	N-nitroso-di-n-butylamine (NDBA)	N-nitroso-dimethyl amine (NDMA)	N-nitroso-methyl ethyl amine (NMEA)	N-nitroso-diethyl amine (NDEA)	N-nitroso-di-n-propylamine (NDPA)	N-nitroso-pyrrolidine (NPYR)	N-nitroso-di-n-butylamine (NDBA)
11/10/09	0.0059	ND	ND	ND	ND	ND	0.0097	ND	ND	ND	ND	ND
2/9/10	0.0038	ND	ND	ND	ND	ND	0.0000	ND	ND	ND	ND	ND
5/11/10	0.0053	ND	ND	ND	ND	ND	0.0053	ND	ND	ND	ND	ND
8/10/10	0.0056	ND	ND	ND	ND	ND	0.0052	ND	ND	ND	ND	ND
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Method	EPA 521	EPA 521	EPA 521	EPA 521	EPA 521	EPA 521	EPA 521	EPA 521	EPA 521	EPA 521	EPA 521	EPA 521
	No Current MCL	No Current MCL	No Current MCL	No Current MCL	No Current MCL	No Current MCL	No Current MCL	No Current MCL	No Current MCL	No Current MCL	No Current MCL	No Current MCL

Acronyms: **ND:** Not Detected **MRDL:** Maximum Residual Disinfectant Level **NR:** Not Regulated **mg/L:** Milligrams per liter or parts per million **µg/L:** Micrograms per liter or parts per billion **pCi/L:** Picocuries per liter **MCL:** Maximum Contaminant Level **MCLG:** Maximum Contaminant Level Goal **NA:** Not Applicable **NTU:** Nephelometric Turbidity Unit **MRDLG:** Maximum Residual Disinfection Level Goal **Max:** Highest Level Detected

The following is an important message from the Environmental Protection Agency: Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. That's because as the water we draw from — lakes, rivers, streams, ponds, reservoirs, springs and wells — travels over the surface of the land or through the ground, it picks up naturally occurring minerals and, in some cases, radioactive material. It can also pick up substances resulting from the presence of animals or from human activity. 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 at 800-426-4791 or visiting the website at www.epa.gov/ogwdw. 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.



Frequently Asked Questions

What is the hardness of Cedar Rapids water?

Cedar Rapids water is considered moderately hard with values of 6-8 grains per gallon or 100–140 mg/L total hardness as calcium carbonate.

What is the fluoride concentration and why is it added?

Fluoride is added during the treatment process to help prevent dental cavities. The optimal concentration is maintained at 0.7 parts per million (ppm) with a range of 0.6–0.9 ppm as recommended by the U.S. Department of Health and Human Services.

My water smells terrible at the kitchen tap – what could be wrong?

Many times gases in the drain trap are displaced upward when running water goes down the drain. It is easy to mistake the odor as coming from the running water when it is coming from the drain. Try pouring a mild bleach solution down the drain and letting the tap run full force for two to three minutes. This should flush the system clean.

My toilet tank and inside of my dishwasher are stained dark brown to black. Is my water safe to drink?

The dark staining is likely due to the corrosion control chemical added during treatment. Its purpose is to lay a protective

coating on the insides of pipes so water never comes in contact with the pipe, thereby reducing the risk of dissolving lead or copper into the drinking water. It has been tested extensively and does not pose a health risk.

My water throughout the entire house tastes and smells musty or stale – is it OK to drink?

Sometimes in low-use areas or dead-end main areas, the water does not get circulated as it should. Where this is the case, the distribution crew can be notified to flush hydrants in the area to help bring in fresh water.

This morning I began seeing black particles and debris in my water – and it looks yellowish. Do you think I have a broken pipe somewhere?

Most times when water discoloration or particles show up all of a sudden, it is because a hydrant or valve has been opened in the area. This happens often in the spring and fall, when street department crews are cleaning the streets or the fire department is testing hydrants before winter weather hits. This generally settles back down and clears on its own within 24-48 hours and is more of an aesthetic issue than a health concern.

GLOSSARY

Action Level (AL)

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Arsenic

The EPA recently lowered the arsenic Maximum Contaminant Level (MCL) to 10 ppb. Trace amounts of arsenic are occasionally detected in your drinking water at levels well below this more stringent standard. Arsenic is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Coliform

A bacteria originating in the digestive system of mammals. Its presence in water alerts lab technicians that disease-causing agents may be present.

Compliance

Following all rules and regulations defined in the Safe Drinking Water Act and maintaining water quality below MCLs.

Contaminant

One of a variety of natural or man-made physical, chemical, biological or radiological substances whose presence in public water systems may cause adverse health effects to consumers.

Detection

The positive identification of the presence of a particular contaminant. Detection of a contaminant does not necessarily represent a serious health risk to consumers if the concentration is below the MCL.

Disinfection

Killing the larger portion of microorganisms in water, with the probability that the disinfecting agent kills all disease-causing bacteria.

Filtration

A treatment process that physically removes particles from water as the water passes through a medium.

Ground water

The supply of fresh water found beneath the earth's surface, usually in aquifers. Ground water is often used to supply wells and springs.

Herbicide

A chemical agent used to kill plants, especially weeds. Used widely in agriculture.

Immuno-compromised

A physical condition in which the human immune system becomes less capable of warding off illness or infection.

Inorganic

Composed of or involving organisms (or their remains or products) that are not living. Examples of inorganic substances include minerals, rocks and salt.

Maximum Contaminant Level (MCL)

The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goals (MCLGs) as feasible, using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG)

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.

Maximum Residual Disinfection 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 Disinfection Level Goal (MRDLG)

The level of 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.

Microbial

A group of microorganisms such as bacteria, protozoa and viruses.

Nephelometric Turbidity Unit (NTU)

A unit of measure used to determine the clarity of drinking water.

Organic

Of, pertaining to, or derived from living organisms. Organic matter contains carbon, hydrogen and oxygen. Examples include humans, plants and animals.

Particulates

Of or relating to minute separate particles.

Pesticides

Any substance or chemical applied to kill or control pests, including weeds, insects, algae, rodents and other undesirable agents.

Radioactivity

The spontaneous decay or disintegration of an unstable atomic nucleus, accompanied by the emission of radiation.

Radon

Radon is a radioactive gas that you can't see, taste or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will, in most cases, be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly.

For additional information, call your state radon program (800-838-5992) or call the EPA's Radon Hotline (800-767-7236).

Surface water

All water naturally open to the atmosphere and all springs, wells or other collectors that are directly influenced by surface water. Water located close to the earth's surface.

Treatment technique (TT)

A required process intended to reduce the level of a contaminant in drinking water.

Turbidity

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

Violation

Exceeding the MCL of a contaminant regulated by the federal government; failure to properly monitor regulated contaminants would also be considered a violation.

