

# Water Quality Report 2013

## Why you've received this report

This report is produced to provide information about the Dallas water system including source water, the levels of detected contaminants and compliance with drinking water rules. This report is also produced in order to answer your water quality questions. **Dallas Water Utilities (DWU) is a "Superior" Rated Water System by the Texas Commission on Environmental Quality (TCEQ). Dallas water meets or exceeds all State and Federal requirements for water quality, and is safe to drink.** If you need more information, please call Dallas' 311 Information Line.

## All drinking water may contain contaminants.

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 U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

In order to ensure that tap water is safe to drink, U.S. EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration, which provides the same protection for public health, prescribes regulations which establish limits for contaminants in bottled water.

### Special notice for the elderly, infants, cancer patients, people with HIV/AIDS and other immune problems

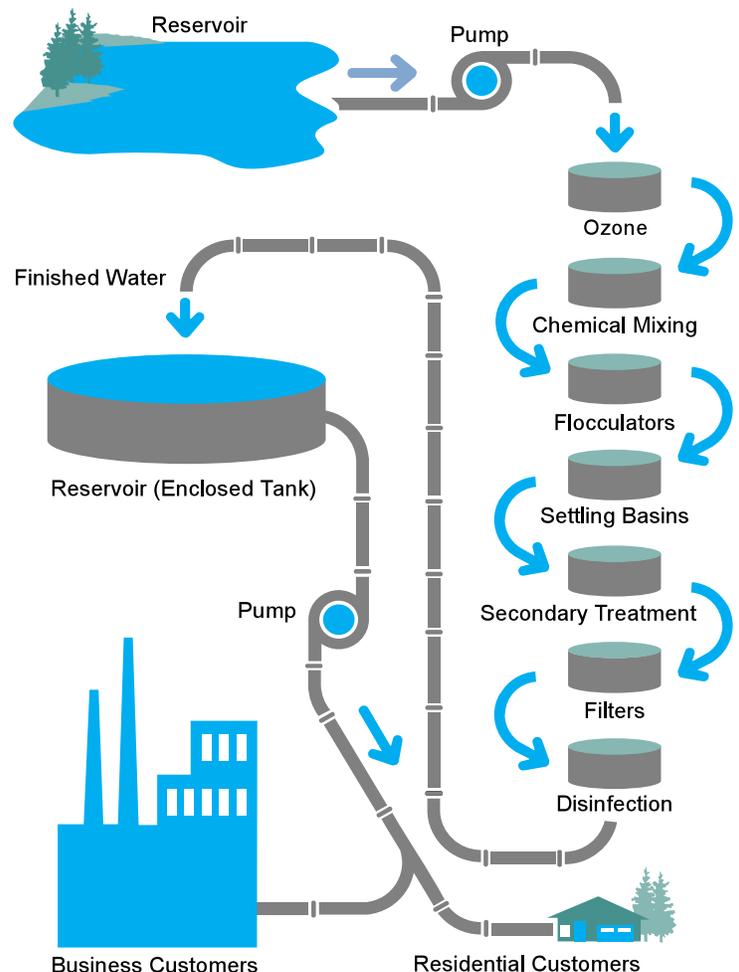
You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline at 1-800-426-4791.

## Cryptosporidium

*Cryptosporidium* is a tiny intestinal parasite found naturally in the environment. It is spread by human and animal waste. If ingested, *cryptosporidium* may cause cryptosporidiosis, an abdominal infection (symptoms include nausea, diarrhea, and abdominal cramps). Some of the ways *cryptosporidium* can be spread include drinking contaminated water, eating contaminated food that is raw or undercooked, exposure to the feces of animals or infected individuals (i.e. changing diapers without washing hands afterward), or exposure to contaminated surfaces. Not everyone exposed to the organism becomes ill.

During 2013, Dallas continued quarterly testing for *cryptosporidium* in both untreated and treated water. Dallas Water Utilities began monitoring for *cryptosporidium* in 1993. It has been found only in the untreated water supply. *Cryptosporidium* has not been found in Dallas treated drinking water. To protect your drinking water, Dallas works to protect the watershed from contamination and optimizes treatment processes. Although Dallas' water treatment process removes *cryptosporidium*, immunocompromised persons should consult their doctors regarding appropriate precautions to take to avoid infection.

## Treatment Process



To request more information on cryptosporidium, please call the U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

## Lead and Copper

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. This water supply 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 is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

## Chlorine

Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

## Where your water comes from

Dallas uses surface water from seven sources: the Elm Fork of the Trinity River and lakes Ray Roberts, Lewisville, Grapevine, Ray Hubbard, Tawakoni and Fork.

## Source Water Assessment and Protection

TCEQ completed an assessment of Dallas' source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for Dallas' water system are based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts call Dallas' 311 Information Line.

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 and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

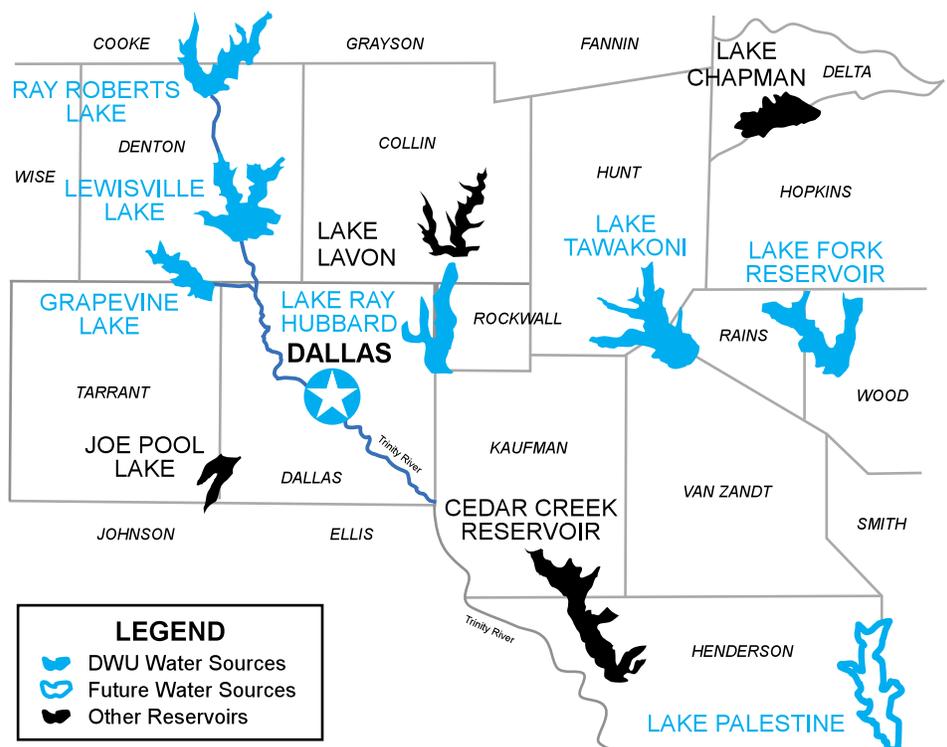
Contaminants that may be present in source water include:

- 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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
- pesticides and herbicides, which might have a variety of sources such as agriculture, urban storm water 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 storm water runoff, and septic systems; and
- radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

Contaminants may be found in drinking water that may cause taste, color or odor problems. These type of problems are not necessarily cause for health concerns. For more information on taste, odor or color of drinking water, please contact City of Dallas, Water Utilities Department at (214) 670-0915.

## Water Loss

In the water loss audit submitted to the Texas Water Development Board for the time period of October 1, 2012 to September 30, 2013, Dallas' system lost an estimated 9.74% of the system input volume. If you have any questions about the water loss audit, please call Dallas' 311 Information Line.



# Water Quality Data Report 2013

This is a summary of water quality data for Dallas Water Utilities. The list includes parameters which DWU currently tests for, in accordance with Federal and State Water Quality Regulations. The frequency of testing varies depending on the parameters and are in compliance with established standards. Dallas Water Utilities is a "Superior" Rated Water System by Texas Commission on Environmental Quality. All three water treatment plants are optimized and certified by meeting the Texas Optimization Program and Partnership for Safe Drinking Water criteria. Dallas water exceeds Federal and State water quality parameters.

CONTAMINANT	YEAR OF RANGE	LEVEL					MCLG	Unit of Measure	Source of Contaminants
		Average	Minimum	Maximum	MCL	MCLG			
<b>Inorganic Contaminants</b>									
Fluoride	2013	0.40	0.32	0.44	4	4		ppm	Erosion of natural deposits; water additive which promotes strong teeth.
Nitrate (as N)	2013	0.53	0.29	1.06	10	10		ppm	Run-off from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits.
Nitrite (as N)	2013	0.017	<0.004	0.0315	1	1		ppm	Run-off from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits.
Bromate	2013	<1.0	<1.0	<5.0	10	0		ppb	By-product of drinking water disinfection.
Aluminum	2013	25.4	7.1	41.6	200			ppb	Naturally occurs in rocks and soil.
Arsenic	2013	1.65	1.42	2.09	10	0		ppb	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium	2013	23.2	14.7	36.3	200	200		ppb	Discharge of drilling waste; discharge from metal refineries; erosion of natural deposits.
Chromium	2013	0.643	0.521	0.707	100	100		ppb	Discharge from steel and pulp mills; erosion of natural deposits.
Manganese	2013	2.16	<0.400	6.49	50			ppb	Naturally occurs in rocks and soil.
Selenium	2013	2.86	2.20	4.08	50	50		ppb	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Combined Radium (226 & 228)	2011	1.0	1.0	1.0	5	0		pCi/L****	Erosion of natural deposits.
Gross beta particle activity	2011	5.3	4	7.2	50	0		pCi/L****	Decay of natural or man-made deposits.
<b>Organic Contaminants</b>									
Atrazine	2013	<0.08	<0.08	0.18	3	3		ppb	Runoff from herbicide on row crops.
Simazine	2013	0.15	0.07	0.27	4	4		ppb	Herbicide runoff.
<b>Disinfection By Products</b>									
Total Haloacetic Acid***	2013	12.1	<1.0	20.4	60	N/A		ppb	Byproduct of drinking water disinfection.
Total Trihalomethanes	2013	11.3	2.9	20.0	80	N/A		ppb	Byproduct of drinking water disinfection.
<b>Total Organic Carbon</b>									
Total Organic Carbon	2013	4.27	3.55	4.99	Treated Water Alkalinity < 60 mg/L as CaCO3			ppm	Naturally present in the environment.
<b>Disinfectant</b>									
Total Chlorine Residual	2013	3.87	2.8	4.85	4*	4*		ppm	In distribution system - Water additive used to control microbes
<b>Lead and Copper</b>									
Lead	2012	0.00135	90 th Percentile** # of sites exceeding action		0		0.015	ppm	Corrosion of household plumbing systems; erosion of natural deposits.
Copper	2012	0.64	0		1.3		ppm	Corrosion of household plumbing systems; erosion of natural deposits.	
<b>Turbidity</b>									
Turbidity	2013	0.18	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits		0.3	NTU	Soil Runoff.
<b>Total Coliforms</b>									
Total Coliforms Bacteria	2013	Highest Monthly % of Positive Samples			4.0%		5 % or more of monthly samples	Found/Not Found	Naturally present in the environment.

\* as annual average    \*\*\* Haloacetic Acids - five species    \*\* 90 percentile value in the distribution system    \*\*\*\* 50 pCi/L - 4 mrem/yr

## Unregulated Contaminants

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Any unregulated contaminants detected are reported in the following table. For additional information and data visit <http://www.epa.gov/safewater/ucmr/ucmr2/index.html>, or call the Safe Drinking Water Hotline at (800) 426-4791.

	YEAR OF RANGE	LEVEL					Unit of Measure	
		Average	Minimum	Maximum	MCL	MCLG		
Chloroform	2013	3.30	3.22	3.38	na	na	ppb	Byproduct of drinking water disinfection.
Bromodichloromethane	2013	2.91	2.37	3.59	na	na	ppb	Byproduct of drinking water disinfection.
Dibromochloromethane	2013	1.85	1.63	2.24	na	na	ppb	Byproduct of drinking water disinfection.

# Definitions

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

**Maximum Contaminant Level (MCL):** The highest level of a contaminant allowed in drinking water. MCLs are set as close to the 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.

**mrem/year:** Millirem per year (measure of radiation absorbed by the body).

**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.

**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.

**ND:** Not detected.

**Nephelometric Turbidity Units (NTU):** Measure of turbidity in water.

**pCi/L:** Pico-curies per liter (a measure of radioactivity).

**POE:** Point of entry. Sample measured at the point where water enters the distribution system.

**ppb:** Parts per billion or micrograms per liter (ug/L).

**ppm:** Parts per million or milligrams per liter (mg/L).

**ppt:** Parts per trillion or nanograms per liter (ng/L).

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

**Turbidity:** A measure of the clarity of drinking water. The lower the turbidity, the better.

## *Your participation is welcome*

Dallas Water Utilities is a not-for-profit department of the City of Dallas and is governed by the Dallas City Council. The City Council meets weekly on Wednesdays. For information about meetings and how to register as a speaker, contact the City Secretary's office at 214-670-3738.

*The following are other helpful telephone numbers:*

- Questions or concerns about water quality - Dallas' 311 Information Line
- Questions about your bill - 214-651-1441
- For brochures on water conservation - 214-670-3155