# ANNUALWATER QUALITY REPORT

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Water Testing Performed in 2014



Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (972) 450-2827.

PWS ID#: TX0570031

#### **Our Mission Continues**

We are proud to present once again our annual water quality report covering all testing performed between January 1 and December 31, 2014. Most notably, last year marked the 40th anniversary of the Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. We celebrate this milestone as we continue to manage our water system with a mission to deliver the best-quality drinking water. By striving to meet the requirements of SDWA, we are ensuring a future of healthy, clean drinking water for years to come.

#### Where Does My Water Come From?

The Town of Addison purchases its water entirely from the City of Dallas. Dallas uses surface water from seven sources. These sources are the Elm Fork of the Trinity River and the following lakes: Ray Roberts, Lewisville, Grapevine, Ray Hubbard, Tawakoni, and Fork. The Texas Commission on Environmental Quality (TCEQ) regulates our water quality. Dallas treats the water before distribution at three separate treatment plants. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline (800) 426-4791.

#### Important Health Information

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 (800) 426-4791.

#### 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 that 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 can acquire 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 which 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.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact our business office. For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.



#### Water Treatment Process

The treatment process consists of a series of steps. First, raw water is drawn from our water sources and sent to an aeration tank, which allows for oxidation of the high iron levels that are present in the water. The water then goes to a mixing tank where polyaluminum chloride and soda ash are added. The addition of these substances cause small particles to adhere to one another (called floc), making them heavy enough to settle into a basin from which sediment is removed. Chlorine is then added for disinfection. At this point, the water is filtered through layers of fine coal and silicate sand. As smaller, suspended particles are removed, turbidity disappears and clear water emerges.

Chlorine is added again as a precaution against any bacteria that may still be present. (We carefully monitor the amount of chlorine to insure that DWU is adding the lowest quantity necessary to protect the safety of your water without compromising taste.) Finally, soda ash (to adjust the final pH and alkalinity), fluoride (to prevent tooth decay), and a corrosion inhibitor (to protect distribution system pipes) are added before the water is pumped to sanitized, underground reservoirs, water towers, and into your home or business.

## Lead in Home Plumbing

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 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.

### What's Your Water Footprint?

You may have some understanding about your carbon footprint, but how much do you know about your water footprint? The water footprint of an individual, community, or business is defined as the total volume of freshwater that is used to produce the goods and services that are consumed by the individual or community or produced by the business. For example, 11 gallons of water are needed to irrigate and wash the fruit in one half-gallon container of orange juice. Thirty-seven gallons of water are used to grow, produce, package, and ship the beans in that morning cup of coffee. Two hundred and sixty-four gallons of water are required to produce one quart of milk, and 4,200 gallons of water are required to produce two pounds of beef.

According to the U.S. EPA, the average American uses over 180 gallons of water daily. In fact, in the developed world, one flush of a toilet uses as much water as the average person in the developing world allocates for an entire day's cooking, washing, cleaning, and drinking. The annual American per capita water footprint is about 8,000 cubic feet, twice the global per capita average. With water use increasing six-fold in the past century, our demands for freshwater are rapidly outstripping what the planet can replenish.

To check out your own water footprint, go to www.gracelinks.org/824/water-program or visit www. waterfootprint.org to see how the water footprints of other nations compare.

#### Water Conservation

You can play a role in conserving water and save 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. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

# **QUESTIONS?**

For more information about this report, or for any questions relating to your drinking water, please contact Phil Kagarice, Utilities Manager/Water Quality, at (972) 450-2860.

#### 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.



#### Cryptosporidium in Drinking Water

ryptosporidium 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 with symptoms that 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 afterwards), or exposure to contaminated surfaces. Not everyone exposed to the organism becomes ill. Dallas Water Utilities began monitoring for Cryptosporidium in 1993. During 2014, Dallas continued testing for Cryptosporidium in both untreated and treated water. It has been found only in the untreated water supply, not 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, immuno-compromised persons should consult their doctors regarding appropriate precautions to take to avoid infection.

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

### Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not themselves pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen and disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at such times. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use and avoid using hot water, to prevent sediment accumulation in your hot water tank.

Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

#### About Our Violation

We received a Maximum Contaminant Level (MCL) violation for total coliform during the period from 09/01/2014 to 09/30/2014. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed, and this was a warning of potential problems. We continue to flush our distribution system in these areas to prevent any future occurrences.

# Sampling Results

During the past year, numerous water samples have been analyzed in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic organic, or synthetic organic organic. The tables below show only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often 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.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Regulation (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality.

REGULATED SUBSTANCES										
SUBSTANCE (UNIT OF MEASURE)			AR PLED			AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE	
Arsenic (ppb)		20	)14	10	NA	1.20	0.98–1.51	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes	
Atrazine (ppb)		20	)14	3	3	0.14	ND-0.25	No	Runoff from herbicide used on row crops	
Barium (ppb)		20	)14	2000	2000	27.0	16.0–39.9	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	
Chloramines (ppm)		20	)14	[4]	[4]	2.81	0.5-4.60	No	Water additive used to control microbes	
Chromium (ppb)		20	014	100	100	0.265	0.229-0.245	No	Discharge from steel and pulp mills; Erosion of natural deposits	
Fluoride (ppm)		20	)14	4	4	0.51	0.4–0.64	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories	
Haloacetic Acids [HAAs]-Stage 2 (ppb)		20	014	60	NA	13.01	4.80–16.1	No	By-product of drinking water disinfection	
Nitrate (ppm)		20	014	10	10	0.89	0.42-1.62	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	
Simazine (ppb)		20	)14	4	4	0.16	0.08-0.24	No	Herbicide runoff	
TTHMs [Total Trihalomethanes]-Stage 2 (ppb)		ppb) 20	)14	80	NA	17.16	3.09-27.4	No	By-product of drinking water disinfection	
Total Coliform Bacteria (% positive samples)		es) 20		ore than 1 positive monthly sample	0	2	NA	Yes	Naturally present in the environment	
Tap water samples were collected for lead and copper analyses from sample sites throughout the community.										
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPL	ED AL	MCLG	AMOUNT DETE	CTED (90T	H%TILE)	SITES ABOVE A	L/TOTAL SIT	ES VIOLATION	TYPICAL SOURCE
Copper (ppm)	2013	1.3	1.3	0	0.383		0/30		No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2013	15	0	:	3.62		1/30		No	Corrosion of household plumbing systems; Erosion of natural deposits
UNREGULATED SUBSTANCES 1										
SUBSTANCE YEAR AMOUNT RANGE   (UNIT OF MEASURE) SAMPLED DETECTED LOW-HIGH TYPICAL SOURCE										
Bromodichloromethane (ppb)	2014	2.91	2.37-	2.37–3.59 By-products of drinking water disinfection						
Bromoform (ppb)	2014	0.35	ND-	.35 By-products of drinking water disinfection						

Chloroform (ppb)	2014	0.50	3.22-3.38	By-products of drinking water disinfection
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Chloromethane (ppb)20140.50ND-0.770Used as foaming agent; production of other substances; by-product of water disinfection

**Dibromochloromethane** (ppb) 2014 1.85 1.63–2.24 By-products of drinking water disinfection

UNREGULATED CONTAMINANT MONITORING REGULATION - STAGE 3 (UCMR3) <sup>1</sup>										
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE						
<b>Strontiuim</b> (ppb)	2014	330	287-365	NA						

<sup>1</sup>Unregulated contaminants are those for which the U.S. EPA has not established drinking water standards. The purpose of monitoring unregulated contaminants is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

### 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.

**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).



