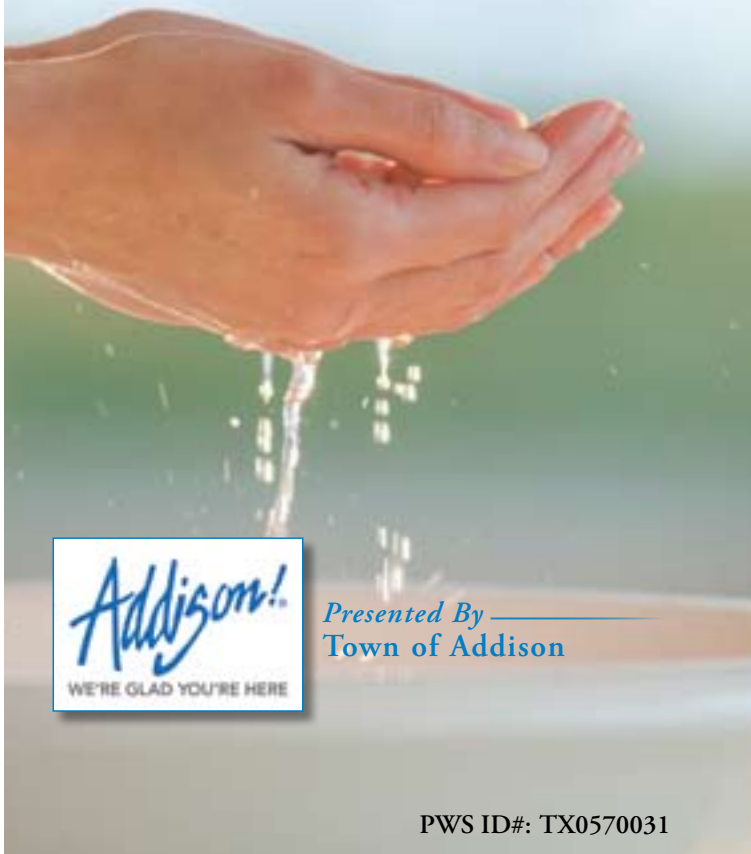


*Annual*  
WATER  
QUALITY  
REPORT

*Reporting Year 2011*



*Presented By* \_\_\_\_\_  
Town of Addison

PWS ID#: TX0570031

## Meeting the Challenge

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2011. Over the years, we have dedicated ourselves to providing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please share with us your thoughts or concerns about the information in this report. After all, well-informed customers are our best allies.



## Important 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.

## *Cryptosporidium* in Drinking Water

*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 that *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. During 2011, Dallas continued monthly 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.

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

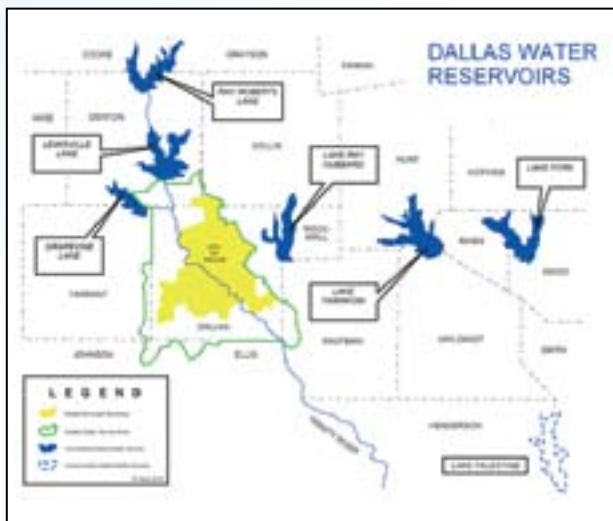
## Lead in Home Plumbing

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 it 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](http://www.epa.gov/safewater/lead).

## Where Does My Water Come From?

In Addison, our drinking water is supplied by the City of Dallas. Dallas obtains its water from the Elm Fork of the Trinity River, as well as from 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.

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. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.



## 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 Supervisor/Water Quality, at (972) 450-2860.



## What Causes the Pink Stain on Bathroom Fixtures?

The reddish-pink color frequently noted in bathrooms on shower stalls, tubs, tile, toilets, sinks, toothbrush holders, and on pets' water bowls is caused by the growth of the bacterium *Serratia marcescens*. *Serratia* is commonly isolated from soil, water, plants, insects, and vertebrates (including man). The bacteria can be introduced into the house through any of the above-mentioned sources. The bathroom provides a perfect environment (moist and warm) for bacteria to thrive.

The best solution to this problem is to continually clean and dry the involved surfaces to keep them free from bacteria. Chlorine-based compounds work best, but keep in mind that abrasive cleaners may scratch fixtures, making them more susceptible to bacterial growth. Chlorine bleach can be used periodically to disinfect the toilet and help to eliminate the occurrence of the pink residue. Keeping bathtubs and sinks wiped down using a solution that contains chlorine will also help to minimize its occurrence.

*Serratia* will not survive in chlorinated drinking water.

## 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 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, disinfectant levels, and an acceptable taste and smell.



## What Are PPCPs?

When cleaning out your medicine cabinet, what do you do with your expired pills? Many people flush them down the toilet or toss them into the trash. Although this seems convenient, these actions could threaten our water supply.

Recent studies are generating a growing concern over pharmaceuticals and personal care products (PPCPs) entering water supplies. PPCPs include human and veterinary drugs (prescription or over-the-counter) and consumer products, such as cosmetics, fragrances, lotions, sunscreens, and household cleaning products. From 2005 to 2009, the number of U.S. prescriptions increased 12 percent to a record 3.7 billion, while nonprescription drug purchases held steady around 3.3 billion. Many of these drugs and personal care products do not biodegrade and may persist in the environment for years.

The best and most cost-effective way to ensure safe water at the tap is to keep our source waters clean. Never flush unused medications down the toilet or sink. Instead, check to see if the pharmacy where you made your purchase accepts medications for disposal, or contact your local health department for information on proper disposal methods and drop-off locations. You can also go on the Web at [www.Earth911.com](http://www.Earth911.com) to find more information about disposal locations in your area.

## 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.

In 2011, the City of Dallas participated in gathering data under the Unregulated Contaminant Monitoring Rule 2 (UCMR 2) in order to assist the U.S. EPA in determining the occurrence of possible drinking water contaminants. This data may be found on the EPA's web site at <http://www.epa.gov/safewater/data/ncod.html>, or you can call the Safe Drinking Water Hotline at (800) 426-4791.

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 the taste, odor, or color of drinking water, please contact Dallas at (214) 670-0917. For more information about contaminants and potential health effects, call the U.S. EPA's 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 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.

### REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Atrazine (ppb)	2011	3	3	0.16	<0.10–0.21	No	Runoff from herbicide used on row crops
Barium (ppm)	2011	2	2	0.015	0.011–0.021	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beta/Photon Emitters <sup>1</sup> (pCi/L)	2011	50	0	5.3	4–7.2	No	Decay of natural and man-made deposits
Chloramines (ppm)	2011	[4]	[4]	3.92	1.4–4.40	No	Water additive used to control microbes
Fluoride (ppm)	2011	4	4	0.65	0.51–0.76	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2011	60	NA	13.00	9.4–18.7	No	By-product of drinking water disinfection
Nitrate (ppm)	2011	10	10	0.65	0.21–0.94	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Simazine (ppb)	2011	4	4	0.36	<0.07–0.78	No	Herbicide runoff
TTHMs [Total Trihalomethanes] (ppb)	2011	80	NA	11.63	6.6–15.7	No	By-product of drinking water disinfection
Turbidity <sup>2</sup> (NTU)	2011	TT	NA	0.15	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting the limit)	2011	TT=95% < 0.3 NTU	NA	100%	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)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2010	1.3	1.3	0.35	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2010	15	0	4.1	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

### UNREGULATED SUBSTANCES<sup>3</sup>

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromodichloromethane (ppb)	2011	1.5	<1.0–1.8	By-product of drinking water disinfection
Chloroform (ppb)	2011	4.8	2.4–9.0	By-product of drinking water disinfection
Dibromochloromethane (ppb)	2011	1.2	<1.0–1.2	By-product of drinking water disinfection

<sup>1</sup>The MCL for beta particles is 4 mrem/year. The U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.

<sup>2</sup>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.

<sup>3</sup>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 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

**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).

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