



*Presented By*  
Town of Addison



ANNUAL  
WATER  
QUALITY  
REPORT

WATER TESTING PERFORMED IN 2015

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

PWS ID#: TX0570031

## Meeting the Challenge

Once again Addison is proud to present our annual drinking water report, covering all drinking water testing performed between January 1 and December 31, 2015. Over the years, we have dedicated ourselves to distributing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best quality drinking water to your homes and businesses. 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 of our water users.

Please remember that we are always available to assist you, should you ever have any questions or concerns about your water.

## Water Loss Audit

In the water loss audit submitted to the Texas Water Development Board for the period of October 1, 2014, to September 30, 2015, Addison's system lost an estimated 4.20% of the system input volume.

## 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.



## 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:

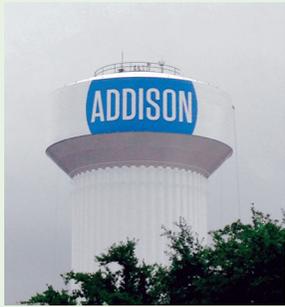
- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and 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. Simply turn off all taps and water using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

## 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 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).

## Water Treatment Process

The treatment process consists of a series of steps. First, raw water is drawn from our water source 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 polyaluminumchloride 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. (Addison carefully monitors the amount of chlorine to ensure that Dallas Water Utilities is adding the lowest quantity necessary to protect the safety of your water without compromising taste.) Finally, soda ash (used to adjust the final pH and alkalinity), fluoride (used to prevent tooth decay) and a corrosion inhibitor (used to protect distribution system pipes) are added before the water is pumped to sanitized, underground reservoirs, water towers, and into your home or business.

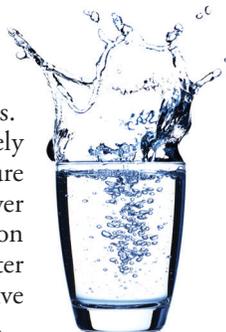
## Failure in Flint

The national news coverage of water conditions in Flint, Michigan, has created a great deal of confusion and consternation over the past year. The water there has been described as being corrosive; images of corroded batteries and warning labels on bottles of acids come to mind. But is corrosive water bad?

Corrosive water can be defined as a condition of water quality that will dissolve metals (iron, lead, copper, etc.) from metallic plumbing at an excessive rate. There are a few contributing factors but, generally speaking, corrosive water has a pH of less than 7; the lower the pH, the more acidic, or corrosive, the water becomes. (By this definition, many natural waterways throughout the country can be described as corrosive.) While all plumbing will be somewhat affected over time by the water it carries, corrosive water will damage plumbing much more rapidly than water with low corrosivity.

By itself, corrosive water is not a health concern; your morning glass of orange juice is considerably more corrosive than the typical lake or river. What is of concern is that exposure in drinking water to elevated levels of the dissolved metals increases adverse health risks. And there lies the problem.

Public water systems are required to maintain their water at optimal conditions to prevent it from reaching corrosive levels. Rest assured that we routinely monitor our water to make sure that what happened in Flint never happens here. For more information on how corrosivity impacts water quality, download this informative pamphlet: <http://goo.gl/KpTmXv>.



## Sampling For *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 afterwards), or exposure to contaminated surfaces. Not everyone exposed to the organism becomes ill.

During 2015, Dallas continued 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 (1-800-426-4791).

## 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

**T**CEQ 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.

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 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 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, please contact the City of Dallas Water Utilities Department at (214) 670-0915 or the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.



### Is tap water cheaper than soda?

Yes! You can refill an 8 oz. glass of tap water approximately 15,000 times for the same cost as a six-pack of soda pop. And, water has no sugar or caffeine.

### How long can a person go without water?

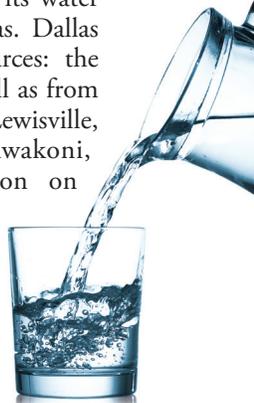
Although a person can live without food for more than a month, a person can only live without water for approximately one week.

### When was drinking water first regulated?

The Safe Drinking Water Act (SDWA) of 1974 represents the first time that public drinking water supplies were protected on a federal (national) level in the U.S. Amendments were made to the SDWA in 1986 and 1996.

## Where Does My Water Come From?

**T**he Town of Addison purchases its water entirely from the City of Dallas. Dallas uses surface water from seven sources: 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 from 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 (1-800-426-4791).



## Sampling Results

During the past year, we have taken numerous water samples 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 requires 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.

Community water systems participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on 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 EPA needs to introduce new regulatory standards to improve drinking water quality.

| REGULATED SUBSTANCES                |              |            |              |                 |                |           |  |
|-------------------------------------|--------------|------------|--------------|-----------------|----------------|-----------|--|
| SUBSTANCE (UNIT OF MEASURE)         | YEAR SAMPLED | MCL [MRDL] | MCLG [MRDLG] | AMOUNT DETECTED | RANGE LOW-HIGH | VIOLATION | TYPICAL SOURCE   |
| Antimony (ppb)                      | 2015         | 6          | 6            | 0.21            | <0.200–0.32    | No        | Discharge from petroleum refineries; Fire retardants; Ceramics; Electronics; Solder                                      |
| Arsenic (ppb)                       | 2015         | 10         | NA           | 0.32            | <0.700–0.95    | No        | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes                   |
| Atrazine (ppb)                      | 2015         | 3          | 3            | 0.11            | <0.08–0.30     | No        | Runoff from herbicide used on row crops  |
| Barium (ppm)                        | 2015         | 2          | 2            | 0.023           | 0.013–0.041    | No        | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits                               |
| Chloramines (ppm)                   | 2015         | [4]        | [4]          | 2.88            | 0.5–4.91       | No        | Water additive used to control microbes  |
| Chromium (ppb)                      | 2015         | 100        | 100          | 0.82            | 0.78–0.86      | No        | Discharge from steel and pulp mills; Erosion of natural deposits   |
| Combined Radium (pCi/L)             | 2011         | 5          | 0            | 1.0             | 1.0–1.0        | No        | Erosion of natural deposits  |
| Cyanide (ppb)                       | 2015         | 200        | 200          | 77.2            | 23.0–155       | No        | Discharge from steel/metal factories; Discharge from plastic and fertilizer factories                                    |
| Fluoride (ppm)                      | 2015         | 4          | 4            | 0.529           | 0.521–0.536    | No        | Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Haloacetic Acids [HAA] (ppb)        | 2015         | 60         | NA           | 21.65           | 11.3–38.9      | No        | By-product of drinking water disinfection  |
| Nitrate (ppm)                       | 2015         | 10         | 10           | 0.771           | 0.304–1.01     | No        | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits                              |
| Selenium (ppb)                      | 2015         | 50         | 50           | 1.57            | <1.00–2.8      | No        | Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines                         |
| Simazine (ppb)                      | 2015         | 4          | 4            | 0.04            | <0.05–0.25     | No        | Herbicide runoff   |
| TTHMs [Total Trihalomethanes] (ppb) | 2015         | 80         | NA           | 22.74           | 10.3–31.8      | No        | By-product of drinking water disinfection  |
| Total Organic Carbon (ppm)          | 2015         | TT         | NA           | 4.11            | 2.71–5.03      | No        | 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 SAMPLED | AL  | MCLG | AMOUNT DETECTED (90TH%TILE) | SITES ABOVE AL/ TOTAL SITES | VIOLATION | TYPICAL SOURCE   |
|-----------------------------|--------------|-----|------|-----------------------------|-----------------------------|-----------|--|
| Copper (ppm)                | 2013         | 1.3 | 1.3  | 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 <sup>1</sup>

| SUBSTANCE (UNIT OF MEASURE) | YEAR SAMPLED | AMOUNT DETECTED | RANGE LOW-HIGH | TYPICAL SOURCE                            |
|-----------------------------|--------------|-----------------|----------------|---|
| Bromodichloromethane (ppb)  | 2015         | 4.84            | 3.49–6.80      | By-product of drinking water disinfection |
| Chloroform (ppb)            | 2015         | 7.31            | 5.25–11.2      | By-product of drinking water disinfection |
| Dibromochloromethane (ppb)  | 2015         | 1.85            | 1.63–2.24      | By-product of drinking water disinfection |

### UNREGULATED CONTAMINANT MONITORING RULE PART 3 (UCMR3) <sup>1</sup>

| SUBSTANCE (UNIT OF MEASURE) | YEAR SAMPLED | AMOUNT DETECTED | RANGE LOW-HIGH |
|-----------------------------|--------------|-----------------|----------------|
| Molybdenum (ppb)            | 2015         | 2.202           | <1.0–2.51      |
| Strontium (ppb)             | 2015         | 263             | 246–280        |

<sup>1</sup> 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.

## Definitions

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

**LRAA (Locational Running Annual Average):** The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as LRAAs.

**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

**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.