



# Drinking Water Quality Report

Year 2013 Data



***Lake Worth turns 100!***

*It was the largest lake in Texas when built.*

*See Page 9 for a story on its history.*

# Frequently asked questions about this report

## Why am I receiving this report?

In 1996, Congress amended the Safe Drinking Water Act to include a requirement that water utilities annually notify customers about their drinking water quality.

The law is quite specific regarding what information must be included. Large utilities also must post it on their websites.

## How is this report distributed?

In January, the U.S. Environmental Protection ruled that electronic distribution of this annual report is acceptable under certain conditions. Fort Worth Water is taking advantage of that decision. We are making customers aware of the

report's availability online through a bill insert. Customers who have chosen to stop receiving paper bills are notified of the report's availability in the e-mail message indicating their June bill is available for viewing.

If you still want a hard copy, you can get one. Just call 817-392-4477 to request one be mailed to you. The law requires utilities make a good faith effort to distribute this report to consumers who are not customers. Consumers are individuals who receive our water but not a bill, such as people who work in Fort Worth and

live elsewhere or anyone living in an apartment complex receiving our water.

For this reason, the report is mailed to multi-family dwellings. In addition, copies are available at all libraries and community centers.

## Why is this report in two languages?

The regulations require the report be available in other languages when certain criteria are met. The Fort Worth City Council has desired the city produce materials in both languages because a large portion of our city is Spanish-speaking.

## Information for immunocompromised people

The following information is not meant to alarm or scare you. It is meant to make you aware. The exact wording shown below is required by state regulations.

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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

### City of Fort Worth Water Department

817-FW-24-HRS  
(817-392-4477)

wpe@FortWorthTexas.gov

[www.FortWorthTexas.gov/water](http://www.FortWorthTexas.gov/water)

[www.saveFortWorthwater.org](http://www.saveFortWorthwater.org)

#### Administrative Office:

Fort Worth City Hall, 2nd Floor

1000 Throckmorton St.

The Water Department is part of the Fort Worth city government. The City Council meets each Tuesday at City Hall, 1000 Throckmorton St. The meetings are at 7 p.m. on the 1st & 2nd Tuesday of the month. The meetings are at 10 a.m. all other Tuesdays. Check the calendar online to make sure a meeting is not cancelled or rescheduled.

## Microorganism testing shows low detections

Tarrant Regional Water District monitors the raw water at all intake sites for *Cryptosporidium*, *Giardia Lamblia* and viruses. The source is human and animal fecal waste in the watershed.

No viruses were detected, but *Cryptosporidium* and *Giardia Lamblia*, microbial parasites common in surface water, were detected at very low levels.

The *Cryptosporidium* testing methods cannot

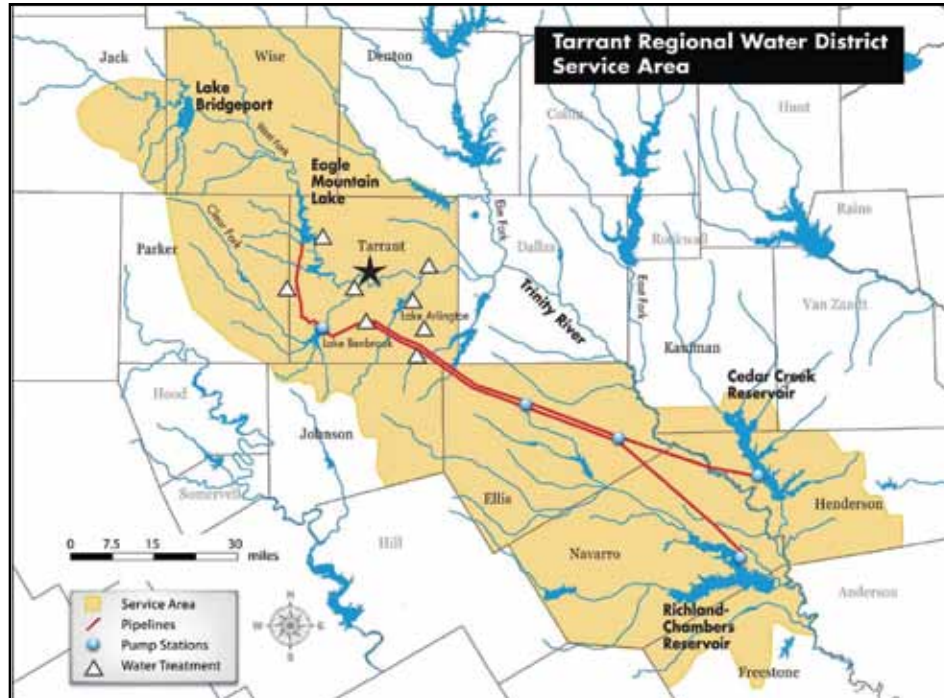
determine if the parasite is dead and inactive or alive and capable of causing cryptosporidiosis. This is an abdominal infection that causes nausea, diarrhea and abdominal cramps after ingestion.

The drinking water treatment process is designed to remove *Cryptosporidium* and *Giardia Lamblia* through filtration.

# Fort Worth relies solely on surface water

Fort Worth uses surface water from Lake Worth, Eagle Mountain Lake, Lake Bridgeport,

Richland Chambers Reservoir, Cedar Creek Reservoir, Lake Benbrook and the Clear Fork Trinity River.



Tarrant Regional Water District supplies Fort Worth with raw water.

## TCEQ accesses raw water supplies

TCEQ completed an assessment of our source water and the results indicate some of our sources are susceptible to certain contaminants. The sampling requirements for our water system are based on this susceptibility and previous sample data. Any detection of these contaminants will be found in this water quality report.

For more information on source water assessments and protection efforts at our system, contact our laboratory at 817-392-5900.

Some of this source water assessment information is available on Texas Drinking Water Watch at [www.tceq.texas.gov/gis/swaview](http://www.tceq.texas.gov/gis/swaview).

human activity.

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 the water poses a health risk.

Contaminants that may be in source water before treatment include microbes, inorganic contaminants, pesticides, herbicides, radioactive materials and organic chemical contaminants.

In addition, contaminants found in drinking water may cause taste, color or odor problems. These types of problems are not necessarily cause for health concerns. For more information on taste, odor or color of drinking water, please contact us at 817-392-4477 or [wpe@fortworthtexas.gov](mailto:wpe@fortworthtexas.gov).

To ensure tap water is safe to drink, the U.S. Environmental Protection Agency and the Texas Commission on Environmental Quality regulate the amount of certain contaminants in water provided by public systems.



## Only Tap Water Delivers

- ...public health protection
- ...fire protection
- ...support for the economy
- ...the overall quality of life we enjoy

# Drinking water quality test results

Contaminant	Measure	MCL	2013 Highest single result	Lowest monthly % of samples ≤ 0.3 NTU	MCLG	Common Sources of Substance
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Turbidity <sup>1</sup>	NTU	TT	0.38	99.4%	N/A	Soil runoff
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Contaminant	Measure	MCL	2013 Level	Range	MCLG	Common Sources of Substance
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Total Coliforms (including fecal coliform & E. coli)	% positive samples	Presence in 5% or less of monthly samples	Presence in 2.2% of monthly samples	0 to 2.2%	0	Coliforms are naturally present in the environment as well as feces; fecal coliforms and E. coli only come from human and animal fecal waste.
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Contaminant	Measure	MCL	2013 Level	Range	MCLG	Common Sources of Substance
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Alpha particles <sup>2</sup>	pCi/L	15	2.8	0 to 2.8	N/A	Erosion of natural deposits
Gross Beta emitters <sup>2</sup>	pCi/L	50	7.5	0 to 7.5	N/A	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beta radiation
Radium 228 <sup>2</sup>	pCi/L	5	1.1	0 to 1.1	0	Erosion of natural deposits
Arsenic	ppb	10	4.48	1.33 to 4.48	0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Atrazine	ppb	3	0.087	0.04 to 0.22	3	Runoff from herbicide used on row crops
Barium	ppm	2	0.06	0.05 to 0.06	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (Total)	ppb	100	2.12	1.28 to 2.12	100	Discharge from steel and pulp mills, erosion of natural deposits
Fluoride	ppm	4	0.65	0.23 to 0.65	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen)	ppm	10	0.78	0.46 to 0.78	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (measured as Nitrogen)	ppm	1	0.03	0 to 0.03	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	ppb	50	3.98	2.92 to 3.98	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Bromate	ppb	10	0.08	0 to 0.08	0	By-product of drinking water disinfection
Haloacetic Acids	ppb	60	12.5	6.5 to 12.5	N/A	By-product of drinking water disinfection
Total Trihalomethanes	ppb	80	22.1	5.8 to 22.1	N/A	By-product of drinking water disinfection

Contaminant	Measure	MRDL	2013 Level	Range	MRDLG	Common Sources of Substance
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Chloramines	ppm	4	2.8	0.7 to 4.1	4	Water additive used to control microbes
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Contaminant	High	Low	Average	MCL	MCLG	Common Sources of Substance
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Total Organic Carbon	1	1	1	TT = % removal	N/A	Naturally occurring
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It is used to determine disinfection by-product precursors. Fort Worth was in compliance with all monitoring and treatment technique requirements for disinfection by-product precursors.

<sup>1</sup> Turbidity is a measure of the cloudiness of water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

<sup>2</sup> Because of historically low levels of radionuclides in its water, TCEQ has Fort Worth on a reduced monitoring schedule. The test results shown are from 2011 through 2013.

The tables list only those contaminants detected in Fort Worth's water. For a complete list of what is tested for in drinking water, visit <http://water.epa.gov/drink/contaminants/index.cfm#List>.

# What you should know about lead in drinking water

If present, elevated lead levels can cause serious health problems, especially for pregnant women and young children. Fort Worth's

## Abbreviations Used In Tables

**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.

**MRL:** Minimum Report Level - The lowest concentration of a contaminant that can be measured by a laboratory

**NTU - Nephelometric Turbidity Unit;** a measure of water turbidity or clarity

**pCi/L - Picocuries per liter;** a measure of radioactivity

**ppb - Parts per billion or micrograms per liter (mg/L)**

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

**TT: Treatment Technique -** a required process intended to reduce the level of a contaminant in drinking water

drinking water does not have elevated lead levels.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing.

Fort Worth 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 two minutes before using the tap water for

drinking or cooking.

If you are concerned about lead in your water, the Fort Worth Water Department Laboratory offers lead and copper testing to our customers. The cost is \$15 per sample for lead testing and \$15 per sample for copper testing. Call 817-392-4477 to make the arrangements.

Information on lead in drinking water, testing methods and steps you can take to minimize your exposure is available from the Safe Drinking Water Hotline at 800-426-4791 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

Contaminant	Year of testing	Measure	90th percentile	# of sites exceeding action level	Action Level	Common Sources of Substance
Lead	2012	ppb	4.5	2	15	Corrosion of household plumbing systems; erosion of natural deposits
Copper	2012	ppm	0.51	0	1.3	
<b>90th percentile value:</b> 90% of the samples were at or below this value. EPA considers the 90th percentile value the same as an "average" value for other contaminants. Lead and copper are regulated by a treatment technique that requires systems to control the corrosiveness of their water. If more than 10%				of tap water samples exceed the action level, water systems must take additional steps. <b>Action Level:</b> The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.		

## Learn more about your water

If you want to learn more about your drinking water, there are many ways to do so. Regardless of the age group, the Water Department has an educational program to offer.

Speakers are available for professional organizations, civic clubs, neighborhood associations, churches or schools. A wide variety of topics can be addressed, including efficient water use, water

quality and water treatment. Programs also are available on the water reclamation process and its energy generation component.

School-age presentations may include videos or hands-on activities.

Contact the public education section at [wpe@fortworthtexas.gov](mailto:wpe@fortworthtexas.gov) or 817-392-7420 to schedule a speaker.

Tours of treatment plants

are available for community groups and schools in our service area. There are security requirements.

Tours range from 30 to 90 minutes and include a preliminary overview followed by a walking tour. They can be scheduled on weekdays during normal business hours for groups of up to 40 people. The minimum age is 10 years old.

## Unregulated Disinfection By-products

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.

Contaminant	Measure	Range of Detects	2013 Level	MCL	MCLG	Common Sources of Substance
Chloral Hydrate	ppb	0.3 to 0.68	0.68	Not regulated	None	By-product of drinking water disinfection
Bromoform	ppb	0 to 2.8	2.8	Not regulated	None	By-products of drinking water disinfection; not regulated individually; included in Total Trihalomethanes
Bromodichloromethane	ppb	1.4 to 9.6	9.6	Not regulated	None	
Chloroform	ppb	2 to 14.2	14.2	Not regulated	70	
Dibromochloromethane	ppb	0.0 to 6.9	6.9	Not regulated	60	
Monochloroacetic Acid	ppb	0 to 3.8	3.8	Not regulated	70	By-products of drinking water disinfection; not regulated individually; included in Haloacetic Acids
Dichloroacetic Acid	ppb	3.5 to 7.3	8.1	Not regulated	None	
Trichloroacetic Acid	ppb	0 to 1.6	7.4	Not regulated	20	
Monobromoacetic Acid	ppb	1.5 to 2.7	9.4	Not regulated	None	
Dibromoacetic Acid	ppb	0 to 1.8	1.3	Not regulated	None	

## Secondary Constituents

These items do not relate to public health but rather to the aesthetic effects. These items are often important to industry.

Item	Measure	2012 Range
Bicarbonate	ppm	88 to 114
Calcium	ppm	31 to 42
Chloride	ppm	10 to 26
Conductivity	µmhos/cm	264 to 360
pH	units	7.7 to 8.3
Magnesium	ppm	3 to 6
Sodium	ppm	17 to 27
Sulfate	ppm	22 to 36
Total Alkalinity as CaCO <sub>3</sub>	ppm	88 to 114
Total Dissolved Solids	ppm	150 to 244
Total Hardness as CaCO <sub>3</sub>	ppm	92 to 122
Total Hardness in Grains	grains/gallon	5 to 7

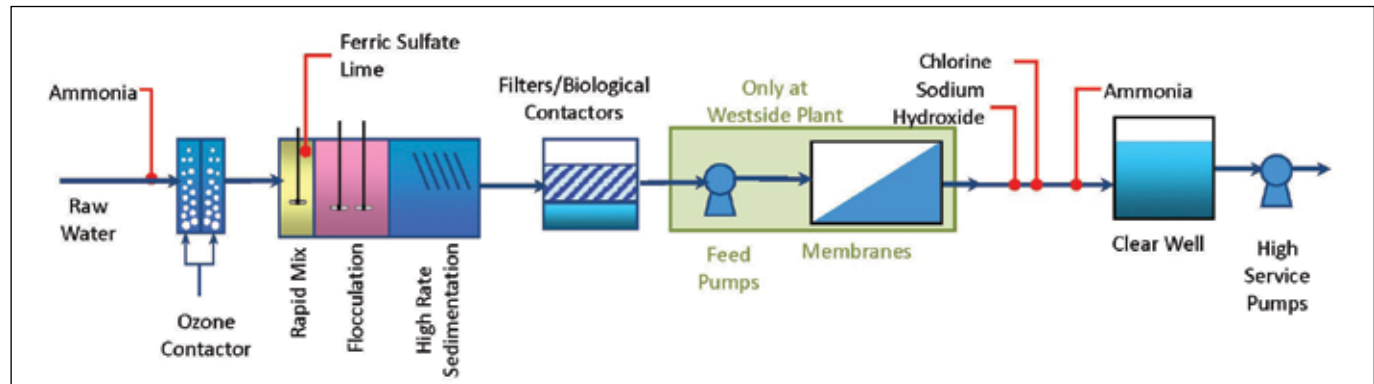
# Water treatment process protects public health

A multi-barrier approach is used in treating drinking water. The treatment process may vary between utilities based on source water quality.

In Fort Worth the process starts with adding ozone to kill bacteria and viruses. Adding ammonia prior to ozonation decreases bromate formation.

Chemicals, called coagulants and polymers, are added to the water to cause small particles to adhere to each other, forming clumps. This process is called flocculation. In the sedimentation basins, the particles, called floc, settle to the bottom of the basin and are removed. A small amount of fluoride is added for dental health.

Water is filtered through four feet of biologically active charcoal filters. At the Westside Water Treatment Plant, the water then passes through membrane filters. See Page 6 for more information on the Westside plant.



Monochloramine is added to provide disinfection all the way to your faucet. The chlorine kills bacteria and viruses. Ammonia is added to reduce the chlorine odor and the amount of chlorine byproducts created.

Water is temporarily stored in tanks, called clearwells, before it is pumped to the public.

# Data gathering to determine if regulation needed

Water utilities in the United States monitor for more than 100 contaminants and must meet 91 regulations for water safety and quality.

Should other contaminants be regulated?

The 1996 Safe Drinking Water Act amendments require that once every five years EPA issue a new list of up to 30 unregulated contaminants to be monitored by public water systems.

This testing helps determine whether these contaminants are found in drinking water, at what levels they are found and in which parts of the country. Depending on how prevalent the contaminants are and at what levels they are found, EPA may conduct further research to determine whether to begin regulating some or all of them.

The first Unregulated Contaminant Monitoring Rule (UCMR 1) was published Sept. 17, 1999, the second (UCMR 2) was published Jan. 4, 2007, and the third (UCMR 3) was published May 2, 2012. Fort Worth did not detect any of the contaminants in the UCMR 1 and UCMR 2 testing.

The third unregulated Contaminant Monitoring Rule includes assessment for 21 chemical contaminants, seven hormones and two viruses. The virus testing did not impact Fort Worth. This testing was limited to small groundwater systems that do not disinfect.

Public water systems will sample for these contaminants for four consecutive quarters from 2013 to 2015. Fort Worth's sampling occurred from June 2013 through March 2014. The results shown are for the first three quarters of sampling. The final quarter's results will appear in next year's annual water quality report.

## Additional Information:

[water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3/index.cfm](http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3/index.cfm)

[www.savefortworthwater.org](http://www.savefortworthwater.org)

## UCMR 3

Fort Worth's testing detected only six of the 21 chemical contaminants and none of the seven hormones.

Contaminant	Measure	Range of Detects	2013 Level	MRL	Common Sources of Substance
Bromochloromethane (Halon 1011)	ppb	0 to 0.25	0.25	0.06	Used as a fire-extinguishing fluid, an explosive suppressant, and as a solvent in the manufacturing of pesticides
Vanadium	ppb	0.56 to 1.6	1.6	0.2	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst
Molybdenum	ppb	1.6 to 2.5	2.5	1	Naturally-occurring element found in ores and present in plants, animals and bacterial; commonly used form molybdenum trioxide used as a chemical reagent
Strontium	ppb	290 to 330	330	0.3	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate class of cathode-ray tube televisions to block x-ray emissions
Chromium <sup>1</sup>	ppb	0 to 0.4	0.4	0.2	Naturally-occurring element; used in making steel and other alloys; chromium-3 or-6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation
Chromium-6	ppb	0 to 0.14	0.14	0.03	
Chlorate	ppb	0 to 720	720	20	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide

<sup>1</sup> Total Chromium, the sum of chromium in all its valence states, is already regulated in drinking water. As part of UCMR 3, EPA requires testing for Total Chromium in the same samples used to test for Chromium 6, which is on the UCMR 3 list. The value differs from what is listed in the table on Page 6 because of different sampling periods. The MCL for EPA's current total chromium regulation was determined based upon the health effects of Chromium 6.

## UCMR 3 contaminants not detected

### Chemicals

1,2,3-trichloropropane  
 1,3-butadiene  
 chloromethane (methyl chloride)  
 1,1-dichloroethane  
 bromomethane  
 chlorodifluoromethane (HCFC-22)  
 1,4-dioxane  
 cobalt  
 perfluorooctanesulfonic acid (PFOS)  
 perfluorooctanoic acid (PFOA)  
 perfluorononanoic acid (PFNA)

perfluorohexanesulfonic acid (PFHxS)  
 perfluoroheptanoic acid (PFHpA)  
 perfluorobutanesulfonic acid (PFBS)

### Hormones

17-β-estradiol  
 17-α-ethynylestradiol  
 estriol  
 equilin  
 estrone  
 testosterone  
 4-androstene-3,17-dione

[www.FortWorthTexas.gov/water](http://www.FortWorthTexas.gov/water)

# Auditing water loss is conservation tool

In 2006, all retail public water utilities were required for the first time to file a water loss audit report and then to do so once every five years. Fort Worth decided to perform the audit annually to monitor the level of water loss.

Last session, the Texas Legislature made it an annual requirement to file the reports and notify customers of the results, starting this year. Water utilities have the option of including the information in their annual water quality report or in a bill insert. Fort Worth has decided to include the information in this annual water quality report.

There are many variables which influence water loss, including meter inaccuracy, data discrepancies, unauthorized consumption, reported breaks and leaks and unreported losses.

The Texas Water Development Board requires calculating water

loss using the proven methodology adopted by the International Water Association and the American Water Works Association.

Fort Worth's Water Conservation

Plan addresses water loss and has goals for lowering this over time. The water department uses several metrics to measure water loss.

Gallons per connection per day is the preferred measure because it is less affected by climatic conditions than other metrics. In the 2009 Water Conservation Plan, water loss measured by gallons per connection per day was 110, with a goal of 95 by 2015 and 75 by 2020. Because of our water loss reduction program, as of 2012, the city's water loss was down to 76 gallons per connection per

day. This was significantly ahead of the 2015 goal and nearly to the 2020 goal. The 2014 conservation plan has goals of 72.5 by 2020 and 70 by 2025.

In the water loss audit submitted to the Texas Water Development Board for

calendar year 2013, the Fort Worth system lost an estimated 7,457,203,860 gallons of water or 16 percent. This translates into a loss of 56 gallons per connection and an

Infrastructure Leakage Index of 3.43.

The ILI is a calculation of the theoretical lowest leakage possible divided by existing calculated leakage. This means that theoretically the leakage could be reduced 3.43 times before reaching the lowest possible value.

This puts Fort Worth in the average zone of ILIs for large water utilities within the United States.

The leak detection program includes continuously monitoring almost 230,000 linear feet of pipe in critical areas, as well as surveying over 2.5 million linear feet annually. Leaks detected and repaired through this program were estimated to have saved over 350 million gallons of water in fiscal year 2013. In addition, the city will continue to encourage customers and field operators to report visual leakage.

Fort Worth is expanding its program to improve leak detection on large mains, those 16 inches in diameter or larger. The information collected will provide the water department's asset management program better information for prioritizing main rehabilitation expenditures. By replacing and repairing the most problematic and risky lines first, the department will reduce water main and service line breaks and leaks, thus reducing water loss.

If you have any questions about the water loss audit, please contact Water Conservation Manager Micah Reed at 817-392-8211.



A trained employee uses special equipment to listen for leaks on buried water lines.



# FOLLOW THE H<sub>2</sub>O!

Follow your water as it travels from the lake to your home and back again!

START

END

1 LAKE OR RIVER

2 WATER TREATMENT PLANT

8 BACK TO RIVER

3 WATER TANK

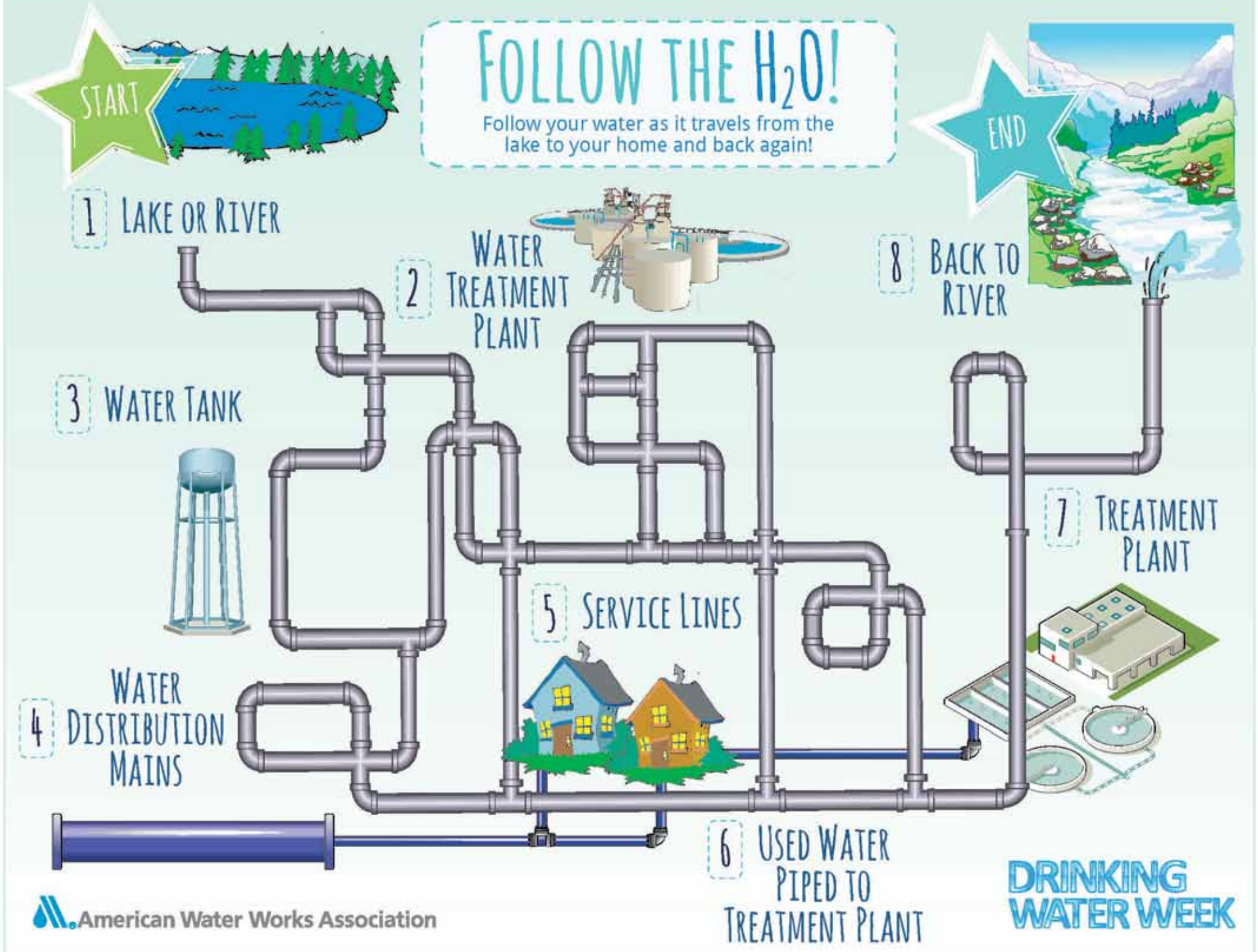
7 TREATMENT PLANT

5 SERVICE LINES

4 WATER DISTRIBUTION MAINS

6 USED WATER PIPED TO TREATMENT PLANT

DRINKING WATER WEEK



# Lake Worth built for water supply

In an his October 1894 “Report on the Water Supply of Fort Worth, Texas”, John MacDonald Blackstock Hawley recommended the city build a large storage reservoir as a solution to its water supply woes. The Minnesota native would end up playing a significant role in the development of the city’s water system as both a consulting engineer and as city engineer (1897-1907).

The city did not immediately take the suggestion, instead choosing to pursue a less expensive option Hawley proposed. In 1895, Hawley designed and oversaw construction of three channel dams along the Clear Fork of the Trinity River to impound water.

The original reservoir proposed by Hawley was on the Clear Fork of the Trinity above seven miles from the city. The estimated cost was \$131,000.

By 1910, Fort Worth’s population had reached 73,300 and the city’s wells and Clear Fork water were insufficient to meet the growing demands. Remembering that Hawley’s 1894 report proposed a surface water reservoir as the ultimate solution to the city’s water needs, the Fort Worth Board of Trade (now the Fort Worth Chamber of Commerce) appointed Hawley to an engineering board charged with determining the best surface water source. The city’s representative was City Engineer J. D. Trammell.

Hawley and Trammell selected the third member – Dean T. U. Taylor, head of the civil engineering department at the University of Texas at Austin.

In early 1911, the three men submitted their report. It recommended building a storage reservoir on the West Fork of the Trinity River about six miles upstream from Fort Worth. This board was retained by the city to design and oversee construction on

the Lake Worth dam and reservoir. Prior to the project’s completion, both Taylor and Hawley resigned in December 1912 and January 1914, respectively. Trammell saw the project through to completion.

Dam construction started in November 1911 and was completed in 1914. The cost to build the lake was \$1.6 million. The 3,200-foot dam includes a 700-foot concrete spillway that can carry 10 feet of overflow. The remaining dam is earthen, “built up of clay and sandy loam laid down in one-foot horizontal layers, well wetted and rolled,” according to A Century in the Works: Freese and Nichols Consulting Engineers, 1894-1994.

The lake first filled on Aug. 19, 1914, and was the biggest water supply reservoir in the state at that time. It was also one of the biggest in the United States. Lake Worth covers 5,430 acres and had a capacity of 42,000 acre feet at the spillway level prior to siltation.

While the lake was being built, the city also undertook building its first water treatment plant. The North Holly Water Treatment Plant started as a 5-million-gallons-a-day rapid sand filtration plant. It began operation on January 31, 1912. Today the plant has an 80-MGD capacity, and the companion South Holly Water Treatment Plant, built in 1957, has a 100-MGD capacity.

This plant initially treated water from the adjacent Clear Fork of the Trinity River. Lake Worth water did not reach customers until completion of the gravity-fed, reinforced-concrete pipeline from the lake to the treatment plant in May 1916. Records from that time show a significant improvement in the raw water quality once the pipeline was placed in service.

Today water is sent to treatment plants through a 60-inch pipeline built in 1928 and a 72-inch pipeline built about 1953. The original pipeline was taken out of service in 1986.

## Cover Photo:

This photo of water pouring over Lake Worth spillway dam was taken in 1923. It hangs in the Water Department’s SCADA building on the Holly Complex. Information printed on it indicates it was taken by Jerigan Commercial Photographers.



A water department employee’s paycheck from 1913.

Many events are planned throughout the year to celebrate Lake Worth’s centennial. Please visit [www.LakeWorth100.org](http://www.LakeWorth100.org) for information on events and more about the lake’s history.