



2 0 0 7 WATER QUALITY REPORT

May 2007

City of Allen Water Utilities Department
305 Century Parkway Allen, Texas 75013 214-509-4500

Water Quality & Service - Our Business
Efficiency & Excellence - Our Goal

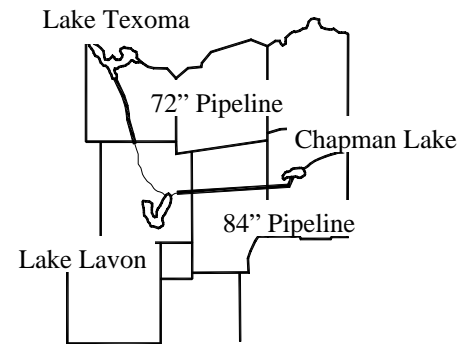
SAFE – HIGH QUALITY – DRINKING WATER – RIGHT FROM YOUR TAP

City of Allen Water Utility employees take pride in delivering safe and “superior” quality drinking water to our customers. Our water system is rated “Superior” by the Texas Commission on Environmental Quality (TCEQ). This rating reflects the hard work and efforts of our employees to protect your health by delivering and maintaining safe and reliable drinking water and recognizes the North Texas Municipal Water District for producing high quality drinking water.

The Water Utilities Department is a municipal water distribution and wastewater collection utility owned by the City of Allen. Wholesale treated water is purchased from the North Texas Municipal Water District (NTMWD) and delivered to our ground storage tanks.

NTMWD Raw Water Supply

NTMWD obtains surface water from three sources: Lake Lavon, Lake Texoma, and Cooper Lake (now known as Lake Chapman). Lake Lavon is the primary source with the other two lakes supplementing Lake Lavon. In early 2008, NTMWD will be supplementing Lake Lavon with raw water from Lake Tawakoni and water that will be pumped into Lake Lavon from below Lake Ray Hubbard.



As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, as well as substances resulting from human or animal activity. Substances that may be present in untreated water include: biological impurities such as bacteria and viruses; inorganic impurities such as salts and metals; pesticides and herbicides; organic chemicals from industry or petroleum use; and radioactive materials. The NTMWD conducts daily tests on both the raw water in Lake Lavon and the treated water they deliver to the City of Allen.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some impurities. The presence of impurities do not necessarily pose a health risk. The U.S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain impurities in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which also must provide the same protection for the health of the general public.

The TCEQ has completed a Source Water Susceptibility report for all drinking water systems that own their sources. This report describes the susceptibility and types of constituents that may come into contact with the drinking water source based on human activities and natural conditions. North Texas Municipal Water District received the assessment report. For more information on source water assessments and protection efforts of our system, contact the City of Allen Water Department for an appointment. More information about impurities and potential health effects can be obtained by calling the U.S. Environmental Protection Agency’s Safe Drinking Water Hotline (1-800-426-4791).

City of Allen Water Distribution System

The pumping and storage system is comprised of three pump stations, five ground storage tanks, and five elevated storage tanks. The ground storage capacity is 27.5 million gallons and the elevated storage capacity is 7.5 million gallons with a system pumping capacity of 62 million gallons per day. Due to the continued growth of the City, a new 2 million gallon water tower was recently built on Prestige Circle. An addition to the Custer Road Pump Station currently under construction will double the size of the pump station and ground storage at that facility. The Water Distribution System is comprised of over 410 miles of water mains with 3,084 fire hydrants and 24,580 metered service connections.

City of Allen Distribution Samples Taken Last Fiscal Year

Bacteriological Scheduled.....900	Disinfectant Residual Scheduled.....2000
Bacteriological Construction.....137	Disinfectant Residual Construction.....137
Trihalomethane Samples.....20	

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en espanol, favor de llamar al telefono 214-509-4500

Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the following pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

Secondary Constituents - Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concerns. Therefore, secondaries are not required to be reported in this document but may affect the appearance and taste of your water.

Non-regulated Substances - Non-regulated substances are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrences in drinking water and whether future regulations are warranted.

Cryptosporidium

North Texas Municipal Water District has tested the lake water and treated water for the presence of cryptosporidium for several years. **Cryptosporidium has been absent in all samples tested.** Cryptosporidium is a protozoan which is so small it can be seen only with a microscope. It affects the digestive tracts of humans and animals. At this time, there is no specific drug therapy proven to be effective, but people with healthy immune systems will usually recover from a cryptosporidium infection within two weeks. The NTMWD continues to diligently test both the source and the treated water for the presence of cryptosporidium.

Special information for the ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS or other immune problems - Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk for infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium are available by calling the Safe Drinking Water Hotline (1-800-426-4791).

The chart on the following page lists the contaminants detected in Allen drinking water. Numerous tests detected no other contaminants. Listed below are the definitions for abbreviations on the next page. As noted, the water quality surpasses standards for each contaminant as required by law.

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water.

Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health.

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.

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.

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

Action Level - The concentration of a contaminant which triggers a treatment or other requirement a water system must follow.

ppm - Parts per million, or milligrams per liter (mg/l). One part per million equals one drop of red dye in 26 gallons of water.

ppb - Parts per billion, or micrograms per liter (ug/l). One part per billion equals one drop of red dye in 26,000 gallons of water.

pCi/L - Picocuries per liter. A measure of radioactivity.

mrem/yr - Millirems per year. A measure of radiation absorbed by the body.

NTU - Nephelometric Turbidity Units. This is the unit to measure water turbidity.

Turbidity - A measure of water's clarity. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Water with lower turbidity is clearer than water with higher turbidity.

THM - Trihalomethanes - a by-product of disinfection of water. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

HAA - Haloacetic Acid. A By-Product of disinfection

TOC - Total Organic Carbon

ND - None Detected

cysts/L—Cysts per liter. One protozoan per liter

Substance	Range of Detection	Highest Average Sample Point	Maximum Contaminant Level	Maximum Contaminant Level Goal	Possible Source
Regulated at the Treatment Plants					
Barium (ppm)	0.06	0.06	2	2	Erosion of natural products
Fluoride (ppm)	0.8-0.9	0.90	4	4	Water additive, natural geology
Nitrate (ppm)	0.23-0.49	0.49	10	10	Fertilizer runoff
Nitrite (ppm) (2005 data)	0.0-0.1	0.1	1	1	Fertilizer runoff
Atrazine (ppb)	0.61-0.67	0.67	3	3	Agricultural herbicide runoff
Simazine (ppb)	0-<0.21	<0.21	4	4	Herbicide runoff
Arsenic (ppb)	ND	ND	10	None	Erosion of natural deposits
Turbidity (ntu)	0.01-0.30	0.13 avg	0.5	N/A	Soil runoff
Gross Alpha Particle Activity (pCi/L) (2004 Data)	ND	ND	15	0	Erosion of natural deposits
Gross Beta (mrem/yr) (2004 Data)	<4	<4	4	0	Decay of natural and manmade products
Radium 228 (pCi/L) (2004)	ND	ND	5	0	Erosion of natural products
Dalapon (ppb)	0	0	200	0	Pesticide
<i>Cryptosporidia and Giardia</i> (cysts/L)	0	0	TT	0	Human and animal fecal waste
Carbon Tetrachloride (ppb)	0	0	5	0	Cleaner
Regulated at the Customer's Taps					
Lead (ppm) 2004 Test Results	90th Percentile Values 1.90		Action level = 15	15	Corrosion of customer plumbing, service connection
Number of Lead Samples exceeding the Action Level - 0					
Copper (ppm) 2004 Test Results	90th Percentile Values 0.612		Action level = 1.3	1.3	Corrosion of customer plumbing, service connection
Number of Copper Samples exceeding the Action Level - 0					
Regulated in Distribution System					
Total Coliform and Fecal Coliform	0	Present in 0 Samples	Present in 0 Samples	0	Human and animal fecal waste
Substance	Range of Detection	Highest Average Sample Point	Maximum Contaminant Level	Maximum Contaminant Level Goal	Possible Source
Total THMs (ppb)	52.80-76.80	73.77	80	0	By-Product of drinking water disinfection
Total HAAs (ppb)	8.30-22.50	20.70	60	N/A	By-Product of drinking water disinfection
Chlorine Residuals (ppm)	1.6-3.3	2.4	0.5 Min	4.0 Max	Disinfectant
Unregulated Substances					
Sulfate (ppm)	114-116	116	250 Proposed		Mineral and nutrient
Sodium (ppm)	82.30	82.30	Not regulated		Mineral
Dibromochloromethane (ppb)	15.10-26.40	25.33	Not regulated		By-Product of drinking water disinfection
Chloroform (ppb)	12.40-18.00	16.95	Not regulated		By-Product of drinking water disinfection
Bromoform (ppb)	2.00-7.60	7.52	Not regulated		By-Product of drinking water disinfection
Bromodichloromethane (ppb)	19.50-27.60	26.32	Not regulated		By-Product of drinking water disinfection
TOC (ppm)	3.03-5.00	4.16	Not regulated		Organic material runoff



The Water Department is part of the City Government. The Allen City Council meets the 2nd and 4th Tuesdays of every month at the Allen City Hall at 7:00 pm. Our email address is coa@cityofallen.org. The City of Allen Website is www.cityofallen.org

Grassy, Earthy Taste and Odor

The North Texas summer climate normally consists of high temperatures and trace amounts of rainfall. The high temperatures and lack of rainfall create an ideal environment for algae to bloom in surface water supplies.

Each summer, throughout the months of July and August, lakes and other surface water supplies experience a natural event – an “algal bloom.” Algal blooms are common to surface water supplies in warm weather climates like Texas.

As hot summer temperatures warm the reservoirs, the lack of rainfall lessens the turbidity (clarity) and allows the sunlight to penetrate the water. With the increase of water temperature and the lack of turbidity, photosynthesis will occur, providing the right environment for algae to rapidly reproduce and “bloom.”

When an algae bloom exists, there is a possibility for a grassy, earthy taste in the treated drinking water supply. **This event, although aesthetically undesirable to the public, does not alter the quality of water provided to the cities and communities for their use.** NTMWD laboratory personnel monitor the raw water quality from Lake Lavon prior to its treatment. One of the many analyses performed is an algae count. Laboratory personnel, through this daily activity, can detect the onset of algal bloom. As blue-green algae species Nostoc and Anabaena reproduce or “bloom,” they produce an oily organic substance that is responsible for the change in taste and odor of the treated drinking water.

NTMWD uses several steps to control the taste and odor produced by the algal bloom. To reduce the unpleasant taste levels, activated carbon is used as an absorption media. Potassium permanganate is added as an oxidizing agent to reduce the odor associated with an algal bloom. Both of these chemicals are removed during the treatment process prior to its delivery to the cities. Chlorine is used throughout the treatment process as a strong disinfectant. Chlorine also aids in odor reduction during the times of algal blooms.

Despite algal blooms, the quality of water remains high as regulated by the Texas Commission on Environmental Quality (TCEQ) and the U.S. Environmental Protection Agency (EPA) standards. The treated water remains safe for human consumption with no health risks created by the “algal blooms.”



www.waterIQ.org

Water Awareness! Here in North Texas, the rapid population growth, booming economic development, and the worst drought in 50 years means water is in greater demand than ever before. As consumers, we need to use water efficiently and wisely. The City of Allen offers rebates for installing water conserving items. View the details online at www.cityofallen.org. Information and applications are also available in City Hall at the Utility Billing windows.

Important Drought Update! In October 2005, the Drought Contingency Plan (“Plan”) was initiated. Stages 1 and 2 of the Plan are voluntary, but Stages 3 and 4 are mandatory and include citation provisions up to \$2,000. Beginning at Stage 3, which was initiated on June 1, 2006, restrictions include a rate surcharge and limits on landscape watering. We expect to be under watering restrictions through the first quarter of 2008. More information is available online at www.cityofallen.org or by calling 214-509-4553.

**Let’s not wait to conserve water in Texas until there is not enough water to conserve.
It’s a natural resource that we cannot reproduce.**

Water Conservation

The City of Allen Water Department was fortunate last summer by not having to impose any type of water rationing upon its customers. That is our goal again this summer. Every customer can help reduce water consumption in and around your home, and lower the water bill while you're doing it. On the back page of this report you will find many ways to reduce your water usage.

In the house.....

- ◆ Showers use less water than tub baths. Do this the next time you shower: Plug the drain and compare the water level with the level you would use for a tub bath. This will give you a good idea as to how much water you save with a shower.
- ◆ Install a low flow shower head that restricts the amount of water flow. You can reduce the amount of water used from about five gallons per minute to approximately two-and-a-half gallons per minute and the new shower head will pay for itself in a short time.
- ◆ Take shorter showers. Turn the water off while soaping and back on again only to rinse.
- ◆ Don't use hot water when cold water will do. Save water and energy by washing hands with soap and cold water.
- ◆ When brushing your teeth, turn off the water until you need to rinse your mouth.
- ◆ When washing your hands don't let the water run. Wet hands, turn off the water while soaping and turn on when rinsing.
- ◆ Your commode could be leaking without your knowing it. Do this: add a few drops of food coloring to the water in the tank, but do not flush. Now watch to see if the coloring appears in the bowl. If it does, the fixture needs adjustment or repair.
- ◆ Never run your dishwasher without a full load. This will save water and your expensive detergent will go a lot further.
- ◆ When cleaning vegetables, use a small pan of water rather than letting the faucet run.
- ◆ Of the total household water use, the washing machine constitutes about 14 percent (32 to 59 gallons per cycle.) Wash full loads only. If your machine has several load settings, use the one for light loads whenever you can.
- ◆ Check all water line connections and faucets for leaks. A slow drip can waste as much as 170 gallons of water a day or 5,000 gallons a month and can add as much as \$10 per month to your bill for that dripping faucet. To check for leaks, turn off all faucets, indoors and out, and then check your water meter. If it continues to run, you need to check for a leak.

Outdoors.....

- ◆ Water your lawn early in the morning during the hot months. Much of the water used on the lawn can simply evaporate.
- ◆ If you use a soaker hose, turn it so that the holes are on the bottom to avoid evaporation.
- ◆ Forget about watering the streets or walks or driveways. They won't grow a thing!
- ◆ Condition the soil with compost before planting grass or flower beds so that water will soak in rather than run off.
- ◆ Fertilize lawns at least twice a year for root stimulation. Grass with a good root system makes better use of less water.
- ◆ Learn to know when your grass needs watering. If it has turned dull grey-green and/or when footprints remain visible, it's time to water. Don't water too frequently. Too much water can overload the soil so that air cannot get to the roots and can encourage plant diseases. Don't over water. Soil can absorb only so much moisture and the rest simply runs off. An inch-and-a-half of water applied once a week will keep most Texas grasses alive and happy.
- ◆ Automatic sprinkler systems should be operated only when the demand on your City's water supply is lowest. Set the system to operate between the hours of 11:00 pm and 3:00 am.
- ◆ If small areas in your yard need more frequent watering (those near walks or driveways or in especially hot, sunny spots), use a watering can or hand water with a hose only in those areas.
- ◆ Never "sweep" your walks or driveways with a hose. Use a broom or rake.
- ◆ When washing the car, use a bucket of soapy water and use the hose only for rinsing.

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