



2 0 0 3 WATER QUALITY REPORT

July 2003

City of Allen Water Utilities Department
305 Century Parkway Allen, Texas 75013 972-727-0160

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

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

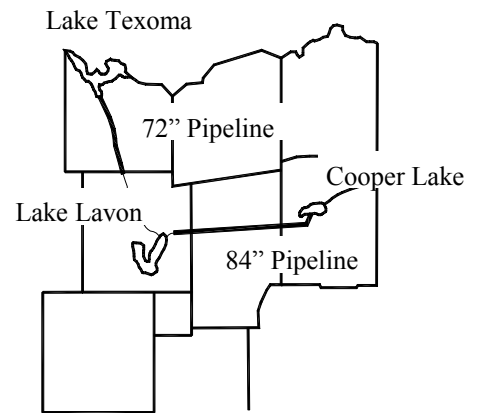
City of Allen Water Utility employees take pride in delivering safe and “superior” quality drinking water to our customers. Our water system is rated “Superior” by the Texas Commission on Environmental Quality (TCEQ). This rating reflects the hard work and efforts of our employees to protect your health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

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 Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain impurities in water provided by public water systems. Federal 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.

More information about impurities and potential health effects can be obtained by calling the 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 four elevated storage tanks. The storage capacity is 25.5 million gallons with a pumping capacity of 62 million gallons per day. Due to the growth that the City has been experiencing, a site has been acquired for a new water tower and construction is to be expected to begin in the summer of 2004. The water distribution system is comprised of over 265 miles of water mains with over 2,900 fire hydrants and 19,977 metered service connections.

City of Allen Distribution Samples Taken Last Fiscal Year

Bacteriological Scheduled.....600	Disinfectant Residual Scheduled.....1825
Bacteriological Construction..... 90	Disinfectant Residual Construction.....90
Trihalomethane Samples.....16	

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

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 reproduce the “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. 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 Environmental Protection Agency (EPA) standards. The treated water remains safe for human consumption with no health risks created by the “algal blooms.”

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 greatly affect the appearance and taste of your water.

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 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).

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 page 4 of this report you will find many ways to reduce the amount of water you use.

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This chart lists the contaminants detected in Allen drinking water. Numerous tests concluded no other contaminants detected. As noted, the water quality surpasses standards for each contaminant as required by law. For additional information, please contact the Allen Water Utilities Department at 972-727-0160.

Substance	Range of Detected	Amount in Allen Water	Maximum Contaminant	Maximum Contaminant	Possible Source
Regulated at the Treatment Plants					
Barium (ppm)	0.030-0.032	0.032	2	2	Wastewater plant discharge, natural geology
Fluoride (ppm)	0.70-0.90	0.90	4	4	Water additive, natural geology
Nitrate (ppm)	0.64-0.96	0.96	10	10	Fertilizer runoff
Atrazine (ppb)	0.75-1.71	1.71	3	3	Agricultural herbicide runoff
Simazine (ppb)	ND<0.20	0.20	4	4	Herbicide runoff
Arsenic (ppb)	ND	ND	10	None	Erosion of natural deposits
Turbidity (ntu)	0.03-0.49	0.11 avg	0.5	N/A	Soil runoff
Regulated at the Customer's Taps					
Lead (ppm) 2001 Test Results	90th Percentile Values 2.80		Action level = 15	15	Corrosion of customer plumbing, service connection
Number of Lead Samples exceeding the Action Level - 0					
Copper (ppm) 2001 Test Results	90th Percentile Values 0.426		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	Presence in 0 Samples	Presence in 0 Samples	0	Human and animal fecal waste
Total THMs (ppb)	41.6- 74.6	53.68 avg	80	0	Chlorine by-product
Unregulated Substances					
Sulfate (ppm)	57-60	79	250 Proposed		Mineral and nutrient
Bromodichloromethane (ppb)	9-26	22 avg	Not regulated		Disinfection by-product
Sodium (ppm)	14.5-17.4	17.4	Not regulated		Mineral
Chloroform (ppb)	13-72	50.5 avg	Not regulated		Disinfection by-product
Bromoform (ppb)	ND-0.7	0.35 avg	Not regulated		Disinfection by-product
MTBE (ppb)	ND-2.4	2.4	Not regulated		Gasoline additive
Dibromochloromethane (ppb)	2.8-8.1	7.0 avg	Not regulated		Disinfection by-product
<p>Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water.</p> <p>Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health.</p> <p>Treatment Technique - A required process intended to reduce the level of a contaminant in drinking water.</p> <p>Action Level - The concentration of a contaminant which triggers a treatment or other requirement a water system must follow.</p> <p>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.</p> <p>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.</p> <p>NTU - Nephelometric Turbidity Units. This is the unit to measure water turbidity.</p> <p>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. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. The goal is to produce water with turbidity levels that are as low as possible.</p> <p>Trihalomethanes (THM) - 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.</p> <p>MTBE - Methyl Tertiary-butyl ether, an chemical additive for gasoline that replaced the use of lead as a octane booster.</p>					



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

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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.

Let's not wait to conserve water in Texas until there is not enough water to conserve.