

Report on the quality of our drinking water

CITY OF SAN ANGELO

JUNE 2011

The City of San Angelo is pleased to provide you with this annual water quality report. The information included in this report represents only a small fraction of what we do to comply with state and federal standards and ensure safe drinking water. Using state certified laboratories, we routinely scrutinize the water supply for an entire range of elements that have the potential to degrade the quality of your water.

Significant progress continues to be made in replacing and upgrading the City's water system infrastructure. Some of the major projects that are underway or will be started within the year are described in this report.

Water conservation continues to be a major factor which allows the City to meet its daily water needs from its current supply sources. Average water usage has declined from 230 gallons per person per day (gpcd) in 1998 to 155 gpcd in 2010.

To ensure San Angelo has adequate water supplies into the future, design work is underway for the development of the Hickory Aquifer well field in McCulloch County. Construction of the pipeline from the well field to San Angelo will begin by the end of 2011.

San Angelo Water System Facts

	2008	2009	2010
Total Year Pumpage (Billion gallons)	4.96	4.98	4.87
Daily Treatment Capacity (Million gallons)	42	42	42
Maximum Day Usage (Million gallons)	24	24	24
Average Day Usage (Million gallons)	14	14	14
Average Person Usage (Gallons per day)	158	159	155
Distribution system (Miles)	651	653	655
Service connections (Water meters)	31,381	31,618	31,721
Fire hydrants	2,651	2,698	2,703

San Angelo City Council

Alvin New	Mayor
Paul Alexander	SMD #1
Dwain Morrison	SMD #2
Johnny Silvas	SMD #3
Fredd Adams	SMD #4
Kendall Hirschfeld	SMD #5
Charlotte Farmer	SMD #6

Who we are

The Department of Water Utilities is part of your city government.

If you have questions about this report, you may contact us by telephone or mail:

(325) 657-4209

Department of Water Utilities

72 W. College

San Angelo, TX 76903

San Angelo City Council

The San Angelo City Council meets on the first and third Tuesday of each month.

Meetings are held at the McNease Convention Center, 500 Rio Concho Drive.

The regular meeting time is 9:00 a.m.

Este reporte incluye información importante sobre el agua, para Español, favor de llamar el telefono.

(325) 657-4209

Water Quality Monitoring Results

STATE and FEDERAL STANDARDS

LEVELS IN SAN ANGELO WATER

SUBSTANCE (UNITS)	MCLG	MCL	AVERAGE LEVEL DETECTED	MINIMUM LEVEL DETECTED	MAXIMUM LEVEL DETECTED	POSSIBLE SOURCE
Flouride ¹ (ppm)	4	4	0.38	0.38	0.38	Erosion of natural deposits
Nitrate ¹ (ppm)	10	10	0.29	0.29	0.29	Runoff from fertilizer use Leaching from septic tanks Erosion of natural deposits
Turbidity ¹ (ntu)						Soil Runoff
Highest Single Sample	NA	1	NA	NA	0.31	
Lowest Monthly Percent Meeting Limit	NA	0.30	100%	NA	NA	
Total Haloacetic acid ¹ (ppd)	NA	60	19.0	17.9	19.7	Water disinfection by-product
Total trihalomethanes ¹ (ppb)	NA	80	48.0	45.2	51.1	Water disinfection by-products
Bromodichloromethane ¹ (ppb)	NA	NA	1.7	1.7	1.7	Water disinfection by-product
Bromoform ¹ (ppb)	NA	NA	7.3	7.3	7.3	Water disinfection by-product
Total organic carbon source water ¹ (ppm)	NA	NA	5.67	5.26	5.89	Naturally occurring
Dibromochloromethane ¹ (ppb)	NA	NA	3.6	3.6	3.6	Water disinfection by-product
Chloroform ¹ (ppb)	NA	NA	0.6	0.6	0.6	Water disinfection by-product
Chloramines ¹ (ppm)	<4	4 (MRDL)	3.31	0.70	5.90	Disinfectant used to control microbes
Total Coliform Bacteria ¹	NA	5% of monthly samples	NA	0	0	Naturally present in the environment
Lead ² (ppb)	15	Action level = 15	No site exceeded action level		90th percentile value - 6.0	Corrosion of household plumbing systems
Copper ² (ppm)	1.3	Action level = 1.3	No site exceeded action level		90th percentile value - .0271	Corrosion of household plumbing systems

¹ Tested 2010 ² Tested 2009

The Quiz

1. How much does water expand when it freezes?
2. At one mile down in the ocean, what is the pressure?
3. Once evaporated, how long does a water molecule spend in the air?
4. When was Lake Nasworthy Dam built?

Answers can be found on the 2011 Capital Projects page.

What is this in our drinking water?

Water is the most universal solvent known. On the surface or underground, when it moves and when it is still, water dissolves naturally occurring minerals and picks up substances generated by animal and human activity. Water contaminants can include microbes, inorganic salts and minerals, organic compounds from industrial processes or petroleum use, pesticides and herbicides, and radioactive elements.

All drinking water, including bottled water may reasonably be expected to contain at least small amounts of some contaminants. Levels of contaminants found in San Angelo water and the accepted levels of the contaminants are shown in the Water Quality Monitoring Results chart. You can get more information about contaminants and their potential effects on health by calling the Environmental Protection Agency's **Safe Drinking Water Hotline: (800) 426-4791**.

The presence of a contaminant does not automatically indicate a health risk.

San Angelo's water is safe. Like all water, it contains some contaminants; San Angelo water is within safe limits for all primary measured contaminants.

Secondary Constituents in San Angelo water

Some substances in drinking water can cause problems involving taste, odor, and color. Elements that cause these problems, called *secondary constituents*, may pose aesthetic problems, but they seldom create a public health concern.

- Taste is affected by minerals such as calcium, sulphur, and salts naturally dissolved in the water.
- Odors usually are caused by microscopic algae that grows in lake and river water.
- Color usually is caused by rust in pipes that deliver water.

Taste, odor, and color typically do not relate to public health concerns.

Special Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population.

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.

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 <http://www.epa.gov/safewater/lead>.

Secondary and other Not Regulated constituents

YEAR TESTED	CONSTITUENT (Unit of Measure)	AVERAGE LEVEL	MINIMUM LEVEL	MAXIMUM LEVEL	LIMIT	SOURCE OF CONSTITUENT
2010	Bicarbonate (ppm)	151	151	151	NA	Corrosion of rocks such as limestone
2010	Chloride (ppm)	346	346	346	300	Naturally occurring elements
2010	pH (units)	7.7	7.7	7.7	>7.0	Measure of corrosivity of water
2010	Sulfate (ppm)	321	321	321	300	Naturally occurring
2010	Total Alkalinity as CaCO ₃ (ppm)	124	124	124	NA	Naturally occurring soluble mineral salts
2010	Total Dissolved Solids (ppm)	1250	1250	1250	1000	Total dissolved mineral constituents in water

Key to Water Quality and Secondary Constituents Charts

MCLG = Maximum Contaminant Level Goal. Contaminant level in drinking water below which there is no known or expected health risk.

MCL = Maximum Contaminant Level. Highest contaminant level allowed in drinking water by state or federal standards.

MRDL = Maximum Residual Disinfectant Level. Highest level of disinfectant allowed in drinking water by state or federal standards.

TT = Treatment Technique. Required process intended to reduce the level of a contaminant in drinking water.

AL = Action Level. Concentration of a contaminant which, if exceeded, triggers requirements which a system must follow.

NTU = Nephelometric Turbidity Units. Measure of the cloudiness of water.

ppb = Parts Per Billion

ppm = Parts Per Million

pci/l = Picocuries Per Liter (measure of radiation)

NA = Not Applicable



True Texans Use Water Wisely

Current 2011 Capital Projects

- Replace 20,000 feet of water mains; \$1.0 million.
- Replace large valves on transmission pipelines; \$500,000
- New emergency power generator for water plant; \$800,000.
- Replace 30" wastewater main along Rio Concho Drive, \$3.6 million.

Projects Planned for 2012

- Replace 23,000 feet of water mains; \$1.3 million.
- Replace and upgrade main water pump station; \$3.4 million.
- Replace wastewater mains; \$1.0 million.
- Replace 24" wastewater main thru central San Angelo; \$6.2 million.

Quiz Answers

1. 10%
2. 2,300 pounds per square inch
3. 10 days
4. 1929

Fats

Oils

Preventing Grease Buildup Beginning At The Kitchen Sink

Grease

FOG

We Need Your Help

**Fats
Oils
Grease
Food Scraps...**

These materials are generated during food preparation.

They don't mix well with water. When flushed, these materials can build up and block the entire sewer pipeline and cause raw sewage overflows into your home, lawns, streets, parks and rivers ...



Creating Health Risks • Destroying the environment • Costing you money

Don't Get Clogged.

NEVER pour fats, oil, grease or food scraps into your sink, garbage disposal or toilet. Scrape grease and food scraps from pots, pans, grills and utensils into a can and place in your garbage.

An environmental message from the City of San Angelo Water Utilities Department

For more information about the proper disposal of fats, oils and grease,
call 325-657-4209.

Working Together To Make San Angelo Better

We Thank You!.....

Water Conservation Tips

- Do one thing each day that saves water. Even if the savings are small, every drop counts.
- Grab a wrench and fix the leaky faucet. It's simple and inexpensive.
- Plug the bathtub before turning the water on then adjust the temperature as the tub fills up.
- Install a rain shut-off device on your automatic sprinklers to eliminate unnecessary watering.



Water Conservation Watering Schedule

April 1st thru October 31st

You may water two times each week, before noon and after 6 p.m.

November 1st thru March 31st

You may water once a week, anytime of day.

Waste of water occurs when: treated or raw city water or well water runs off property to a gutter, street, alley, ditch or drainage facility; for a distance of more than 150 feet.

For more information, contact the Water Conservation Division at

657-4506



DEPARTMENT OF WATER UTILITIES
72 W. College
San Angelo, TX 76903

The City of San Angelo's Annual Report on Our Drinking Water

About San Angelo Water

Where it comes from

San Angelo has six surface water sources:

Twin Buttes Reservoir

O.C. Fisher Lake

Lake Nasworthy

O.H. Ivie Reservoir

E.V. Spence Reservoir

The City of San Angelo also takes water from the **South Concho River** (at Lone Wolf Dam, by the Water Plant on Ave. I and Metcalf).

Where it goes

Residential	62%
Commercial	20%
System operation	14%
Industrial	4%

Water is life.
Conserve it. Protect it.