

# Water Quality Report 2007



## Special Notice

### For Elderly, Infants, Cancer Patients, People with HIV/AIDS or Immune Problems:

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

**O**ur drinking water meets or exceeds all federal drinking water requirements. This Water Quality Report is a summary about the drinking water San Antonio Water System (SAWS) provides our customers.

The data in this report was prepared from the most recent required tests set by the U.S. Environmental Protection Agency (EPA). Public water systems, like SAWS, are required by law to report every year on the type and quantity of substances that are in our water. This law – the Safe Drinking Water Act (SDWA) amended by Congress in 1996 – has specific guidelines concerning drinking water quality, as well as the methods and frequency of testing.

The EPA with assistance locally from the Texas Commission on Environmental Quality (TCEQ) administers the SDWA to ensure that tap water is safe to drink by restricting presences of contaminants in public water systems. In addition, SAWS tests the quality of water daily, and the TCEQ reviews the Edwards and Trinity aquifers as part of its source water assessment.

## Our Commitment to You

SAWS is genuinely committed to providing our customers with plentiful and quality drinking water. Historically, SAWS and its predecessors have been rated as a superior water system since 1936.

Your confidence in San Antonio's water supply is important to us. We hope this information will help you become more knowledgeable about your drinking water.

## Where Our Water Comes From

During 2006 – the testing period represented in this report – most of SAWS drinking water originated as ground water from the Edwards and Trinity aquifers.

In 2006, SAWS added surface water from Canyon Lake to our system. Information on additional water resources is available at our Web site at [www.saws.org/our\\_water/waterresources](http://www.saws.org/our_water/waterresources).



## What are Contaminants?

A contaminant is a technical term for anything detected other than water. It is natural for drinking water to contain some contaminants, and San Antonio Water System is no exception. But the presence of contaminants in drinking water and even bottled water does not necessarily indicate that water poses a health risk.

Sources for 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 the naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

## What are 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. Although these constituents are not causes for health concern and not required to be reported in this document, a table with this information is presented on page 3 of this report.



# Your Water Quality Report

TCEQ has completed an assessment of SAWS source water and results indicate that 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 detections of these contaminants can be found in this report.

Contaminants that may be present in source water include:

- **Microbiological contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife. Cryptosporidium is an example of a microbiological contaminant affecting surface water sources.
- **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 may have a variety of sources such as agriculture, urban storm water runoff and residential uses;
- **Organic chemical contaminants**, which are by-products of industrial processes and petroleum production and also can 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.

For more information on source water assessments and protection efforts at our system, please contact us at 210-704-SAWS (704-7297).

## Understanding the Charts

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

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

**Maximum Contaminant Level (MCL):** The highest permissible level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of 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 contamination.

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

**MFL:** million fibers per liter (a measure of asbestos)

**N/A:** Not applicable

**ND:** Not detected

**Not regulated:** The contaminant is not currently regulated by the Environmental Protection Agency.

**NTU:** Nephelometric Turbidity Units

**pCi/l:** Picocuries per liter. A measure of radioactivity in water.

**Points-of-entry:** Entry point to the distribution system which is representative of each well after disinfection.

**ppb:** Parts per billion. One part per billion is equal to one teaspoon in 1,302,000 gallons – enough to fill a typical bathtub more than 40,000 times.

**ppm:** Parts per million. One part per million equals one teaspoon in 1,302 gallons, which is enough water to fill a typical bathtub more than 40 times.

Remember that substances are shown in parts per million or parts per billion. From these charts, you will see that water delivered by SAWS is of excellent quality.

## Inorganic Contaminants (2002-2006)

Substance	Concentration Range Found	Avg. Conc. Found	MCL	MCLG	Possible Source
Barium (ppm)	0.024 – 0.112	0.051	2	2	Discharge from drilling wastes; discharge from metal refiners; erosion of natural deposits.
Chromium (ppb)	0 – 8.4	2.4	100	100	Discharge from steel and pulp mills; erosion of natural deposits.
Fluoride (ppm)	0.17 – 2.02	0.68	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories.
Nitrate (ppm)	0 – 2.32	1.67	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Selenium (ppb)	0 – 5.1	0.1	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Combined Radium 226 & 228 (pCi/L)	0 – 0.7	0.04	5	0	Erosion of natural deposits.
Gross beta emitters (pCi/L)	0 – 2.6	0.11	50	0	Decay of natural and manmade deposits.
Gross alpha Adjusted (pCi/L)	0 – 3.6	0.51	15	0	Erosion of natural deposits.

**Organic Contaminants** Testing waived, not reported or none detected

## Maximum Residual Disinfectant Level

Disinfectant	Test Year	Concentration Range Found	Avg. Conc. Found	MRDL	MRDLG	Possible Source
Chlorine Residual, Free (ppm)	2006	0.21 – 1.51	0.88	4	4	Disinfectant used to control microbes.

## Secondary Constituents (2002-2006)

Constituent	Concentration Range	Average Concentration Found	Limit (ppm)
Aluminum (ppb)	0 – 0.077	0.003	50
Bicarbonate (ppm)	184 – 278	220	NA
Calcium (ppm)	42.5 – 101	76.5	NA
Chloride (ppm)	11 – 23	16	300
Copper (ppm)	0.001 – 0.037	0.01	1
Iron (ppb)	0 – 0.139	0.009	0.3
Magnesium (ppm)	12.1 – 27.9	16.6	NA
Manganese (ppm)	0 – 0.0037	0.0003	0.05
Nickel (ppb)	0.002 – 0.003	0.002	NA
pH	7.5 – 8	7.7	8.5 units
Sodium (ppm)	8 - 20	11	NA
Sulfate (ppm)	14 – 56	25	300
Total Alkalinity as Calcium Carbonate	157 – 278	217	NA
Total Dissolved Solids	230 – 343	298	1,000
Total Hardness as Calcium Carbonate	183 – 275	233	NA
Total Hardness as Calcium/Milligram	232 – 310	261	NA
Zinc	0 – 0.141	0.02	5

### What is Turbidity?

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, and diarrhea and associated headaches.

### Turbidity (2006)

Substance	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Limits	Source of Contaminant
Turbidity (NTU)	0.60	100	0.3	Soil runoff.

### What Are Coliforms?

Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption. Fecal coliform bacteria and, in particular, *E. coli*, are members of the coliform bacteria group originating in the intestinal tract of warm-blooded animals and are passed into the environment through feces. The presence of fecal coliform bacteria (*E. coli*) in drinking water may indicate recent contamination of the drinking water with fecal material.

## Microbiological Contaminants Monitoring (2006)

Substance/Measurement	MCL	Amount Found	Source
Total Coliform Bacteria (presence)	a	Highest Monthly % of positive samples: 4%	Naturally present in the environment
Fecal Coliform and <i>E. coli</i> (presence)	b	2	Human and animal fecal waste

a Presence of coliform bacteria in 5% or more of the monthly samples.

b A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or *E. coli* positive

## Lead and Copper Results (2004)

Substance	90th Percentile	Action Level	Number of Residences Exceeding Action Level	Possible Source
Lead (ppb)	4.3	15	0	Corrosion of household plumbing
Copper (ppm)	0.213	1.3	0	

## Distribution Sampling for By-Products of Drinking Water Chlorination (Disinfection) (2006)

Substance	Concentration Range Found	Average Concentration Found	MCL	Source of Contaminant
Total Trihalomethanes (THMs) (ppb)	0 - 112.5	25.7	80	By-product of drinking water disinfection.
Total Haloacetic Acids (HAAs) (ppb)	0 - 33.1	5.2	60	By-product of drinking water disinfection.

## Unregulated Contaminants (2002-2006)

Substance	Concentration Range Found	Average Level	Source of Contaminant
Bromoform (ppb)	0 - 3.8	0.53	By-product of drinking water disinfection.
Bromodichloromethane (ppb)	0 - 7.6	0.26	By-product of drinking water disinfection.
Chloroform (ppb)	0 - 3.2	0.08	By-product of drinking water disinfection.
Dibromochloromethane (ppb)	0 - 12	0.8	By-product of drinking water disinfection.

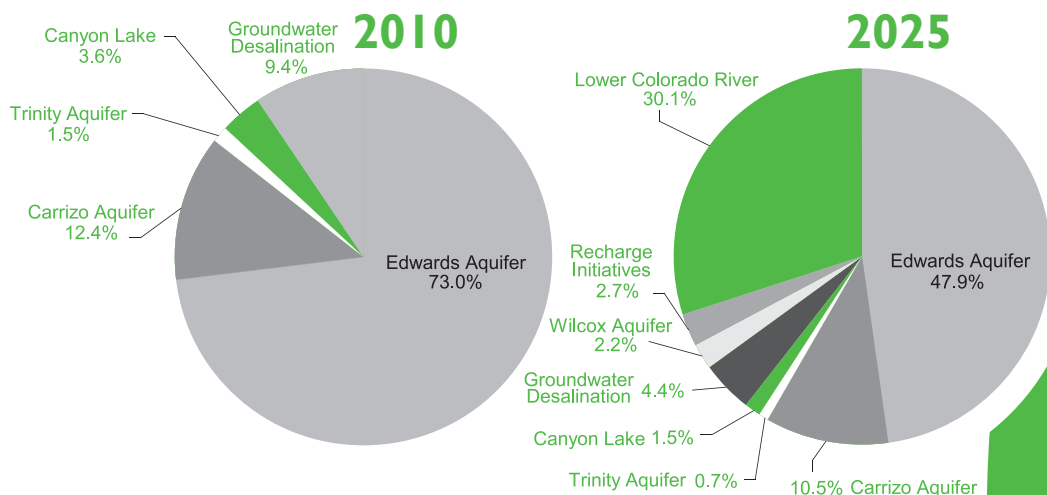
## Public Participation Opportunities

SAWS offers the public the opportunity to speak to us about your water needs. To find out when SAWS Board meetings and Town Hall meetings are scheduled, call SAWS Communications and Community Outreach Office at 233-3621. You can also visit our Web site on the Internet at [www.saws.org](http://www.saws.org).

## SAWS Securing New, Future Water Resources

Just a few years ago, San Antonio was totally dependent on day-to-day pumping from the Edwards Aquifer for the city's water needs. Now, as a result of extensive planning, and funding through the Water Supply Fee, SAWS is working to secure San Antonio's water future.

The SAWS Water Resource Plan looks toward the next 50 years, taking a leadership role in the protection and development of water supplies for the San Antonio and Bexar County area. The plan is to reduce reliance from the Edwards Aquifer and to develop new and affordable water resources for the future.



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

## Contact Us

### By Phone

**704-SAWS (704-7297)**

Our Customer Service Lines are open 24 hours a day for:

- Customer Service help
- Reporting leaks, main breaks, or sewer back-ups,
- Contacting us for water quality concerns

### On The Web

**[www.saws.org](http://www.saws.org)**

Our web site has the latest news releases and program information on water issues.

### In Your Neighborhood (210) 233-3621

The SAWS Community Relations team extends its community outreach efforts with neighborhood leaders through homeowners associations and neighborhood meetings, schools and community gatherings. Call us for more information about how we can assist in your neighborhood.

### Visit Us

#### Customer Service Locations

Downtown 2800 U.S. Hwy 281 N.  
Eastside 915 South W.W. White Rd.  
Westside Las Palmas Mall

**Hours: 8 a.m. to 5 p.m.**

If you would like more information or a copy of this Water Quality Report in Spanish, please call 704-7297.

### En Español

Este reporte incluye información sobre su agua potable. Si desea más información o una copia de este reporte en español, por favor llame al 704-7297.

