

CITY OF ALAMO HEIGHTS

2008 WATER QUALITY REPORT



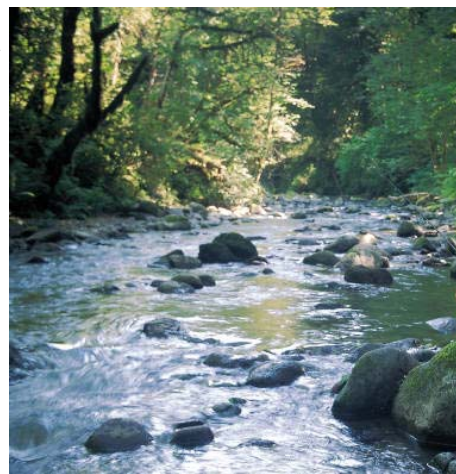
Providing Quality Water

2008
Water Quality Report

The City of Alamo Heights is proud to present its 2008 Water Quality Report. This report reflects all testing completed from January 1 through December 31, 2008. Over the years, we have dedicated ourselves to provide drinking water that meets all state and federal drinking water standards. The City of Alamo Heights continually strives to adopt new and better methods of delivering the best quality drinking water to its residents. As regulations and drinking water standards change, it is the City's commitment to meet the challenges of source water protection, water conservation and community education while continuing to serve the needs of all our residents. In complying with legislation, we have developed this report to provide valuable information about your drinking water.

Drinking Water Source

The City of Alamo Heights' sole source of water is the Edwards Aquifer which is one of the world's most unique groundwater resources. The Edwards Aquifer has supported civilization for more than 8,000 years and today is the primary source of water for 1.3 million people. The aquifer is about 180 miles long and five to 40 miles wide at different points. It reaches from Bracketville in the west to Kyle in the east. The aquifer covers over a 3,000 square mile area. The primary geologic component of the Edwards Aquifer is Edwards Limestone. It occurs in three distinct segments: the drainage area, the recharge zone and the artesian zone. Each area is equally important to the health and viability of the Edwards Aquifer as a whole.



Notice for High Health Risk Groups

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as person with cancer undergoing chemotherapy, persons with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections.

These people should seek advice about drinking water from their health care providers. Environmental Protection Agency (EPA), Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Public Participation Opportunities

To get involved in decisions affecting your drinking water, attend and comment at the Alamo Heights City Council meetings, the 2nd and 4th Monday of each month. The meetings are held in the City Council Chambers located at 6120 Broadway and begin at 5:30 p.m. Agendas are available on the City's website at www.alamoheightstx.gov.

City of Alamo Heights Officials

Mayor: Louis Cooper

City Council: Mayor Pro-Tem/Place 3 - Bill Kiel, Place 1 - Stan McCormick, Place 2 - Bobby Rosenthal, Place 4 - Jill Souter and Place 5 - Susan Harwell

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SAFE DRINKING WATER ACT

Under the Safe Drinking Water Act (SDWA), EPA is responsible for setting national limits for hundred of substances in drinking water and also specifies various treatments that water systems must use to remove these substances. Similarly, Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Each system continually monitors these substances and reports directly to the EPA if they were detected in the drinking water. EPA uses this

data to ensure that consumers are receiving clean water and verifies that states are enforcing the laws that regulate drinking water.

When drinking water meets federal standards there may not be any health based benefits to purchasing bottled water. Drinking water, including bottled water, may reasonably be expected to contain at least small amount of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

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 concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

This report conforms to the federal regulation under SDWA requiring water utilities to provide detailed water quality information to each of their customers annually. For more information about this report, to request additional copies, or for any questions or concerns relating to drinking water, please contact Alamo Heights Utility Division at 882-1518 or irojas@alamoheightstx.gov.

GENERAL INFORMATION

All water sources (both tap water and bottled water) contain impurities. As water flows over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff and septic systems.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

Detected Regulated Contaminants

Parameter	Major Source	Units	Year	EPA Regulations		Alamo Heights Water Results		
				Ideal Level/ Goal (MCLG)	Maximum Allowable (MCL)	Average Level	Minimum Level	Maximum Level
Organic Contaminants - Testing Waived, Not Reported, or None Detected								
Inorganic Contaminants								
Nitrate	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits.	ppm	2008	10	10	1.92	1.84	2.05
Fluoride	Dental health additive.	ppm	2008	4	4	0.2	0.10	0.23
Maximum Residual Disinfectant Level								
Chlorine Residual, Free	Disinfectant used to control microbes.	ppm	2008	4	4	0.88	0.36	1.44
Disinfection Byproducts								
Total Haloacetic Acids	Byproduct of drinking water disinfection.	ppb	2008	N/A	60	0.5	0	2.1
Total Trihalomethanes	Byproduct of drinking water disinfection.	ppb	2008	N/A	80	0	0	6.2
Unregulated Initial Distribution System Evaluation for Disinfection Byproducts - Waived or Not Yet Sampled								
Unregulated Contaminants - Not Reported or None Detected								
Lead and Cooper								
Parameter	Major Source	Units	Year	EPA Regulations		Alamo Heights Water Results		
				Ideal Level/ Goal (MCLG)	Action Level (AL)	90th Percentile Level Minimum Level	# of Sites Exceeding AL	
Lead	Corrosion of plumbing systems; erosion of natural deposits.	ppb	2008	0	15	5.1	0	
Copper	Corrosion of plumbing systems; erosion of natural deposits; leaching from wood preservatives.	ppm	2008	0	1.3	0.138	0	
<p>All water systems are required by EPA to report the language below starting with the 2009 CCR to be delivered to you by July of 2010. We are providing this information now as a courtesy. <i>“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 www.epa.gov/safewater/lead.”</i></p>								
Turbidity - Not Required								

Total Coliform - Reported Monthly Tests Found No Coliform Bacteria**Fecal Coliform - Reported Monthly Tests Found No Fecal Coliform Bacteria****Secondary and Other Constituents Not Regulated - (No associated adverse health effects)**

Parameter	Major Source	Units	Year	Average Level	Minimum Level	Maximum Level	Secondary Limit
Bicarbonate	Corrosion of carbonate rocks such as limestone.	ppm	2008	206	202	211	N/A
Chloride	Abundant naturally occurring element; used in water purification; by product of oil field activity.	ppm	2008	15	14	15	300
Hardness as Ca/Mg	Naturally occurring calcium and magnesium.	ppm	2005	248	246	250	N/A
pH	Measure of corrosivity of water.	units	2008	7.6	7.4	7.7	>7.0
Sulfate	Naturally occurring; common industrial by product; byproduct of oil field activity.	ppm	2008	18.5	17	19.5	300
Total Alkalinity as CaCO ₃	Naturally occurring soluble mineral salts.	ppm	2008	206	202	211	N/A
Total Dissolved Solids	Total dissolved mineral constituents in water.	ppm	2008	268	253	286	1000

Definitions

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 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 Residual Disinfectant Level (MRDL) The highest level of 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 contamination.

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

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

Parts per Million (ppm)/ Parts per Billion (ppb) A part per million means that one part of a particular contaminant is present for every million parts of water. Similarly, parts per billion indicate the amount of a contaminant per billion parts of water.

Not Applicable (N/A) Means EPA has not established MCLGs for these substances.

Water Conservation Program

In 2007, the 80th Texas Legislature amended Section 13.146 of the Texas Water Code to require each retail public utility that provides potable water service to 3,300 or more connections to submit a water conservation plan to the Texas Water Development Board no later than May 1, 2009. At the April 27th Council Meeting the City Council adopted a City Water Conservation plan and approved submission of the plan to the Texas Water Development Board.



As part of the Water Conservation Plan the city has implemented a Water Conservation Program. The City has partnered with Morrison Supply, a local plumbing supply company and Caroma, Inc., an international toilet manufacturer specializing in water-efficient fixtures, to provide vouchers for the purchase of water-efficient replacement toilets for all water customers at a reduced cost in addition to qualifying for a \$50.00 water bill credit with original proof of purchase. The vouchers are limited to Alamo Heights customers and two (2) vouchers and credits per occupied unit. By replacing 3.5 to 5 gallon per flush toilets, the city estimates a savings of 8,130 gallons of water per year (approximately 22 gallons of water per toilet per day). The program was launched June 2009.

Stage Water Restrictions

In 2008, the Edwards Aquifer Authority (EAA) implemented new Stage Water Restrictions which reduce the amount of water that may be pumped by a water utility during drought conditions. The adopted Stage Water Restrictions are as follows:

Critical Period (Reduction) Stage*	Index Well J-17 Level (MSL)	San Marcos Springs Flow (CFS)	Comal Springs Springs Flow (CFS)	Withdrawal Reduction – San Antonio Pool
I	<660	<96	<225	20%
II	<650	<80	<200	30%
III	<640	N/A	<150	35%
IV	<630	N/A	<100	40%

* Implementation of Stage I is based on a 10-day average. A change to a critical period stage with higher withdrawal reduction percentages is triggered if the 10-day average of daily springflows at the Comal Springs or the San Marcos Springs or the 10-day average of daily aquifer levels at the J-17 Index Well drops below the lowest number of any of the trigger levels. A change to a critical period stage with lower withdrawal reduction percentages is triggered only when the 10-day average of daily springflows at the Comal Springs or the San Marcos Springs and the 10-day average of daily aquifer levels at the J-17 Index Well are all above the same stage trigger level.

Current Major Water Project

In order to meet TCEQ requirements for elevated water storage, the city has begun construction of a 600,000 gallon elevated water tank at the City Hall complex. The work includes the construction of a composite elevated water tank, needed piping improvements, installation of an electronic monitoring system and repainting of the existing 300,000 gallon elevated water tank which is also located at the City Hall complex.



The existing 100,000 gallon tank (better known as the “tin-man”) and the 150,000 gallon tank, located at the old TMI site, are proposed to be decommissioned after the erection of the new water tank. The new elevated water tank project is scheduled to be completed in March 2010.



Why are we flushing water out of the water system?

Public water systems are required to periodically flush distribution system piping in order to maintain water quality that meets state and federal drinking water standards. To comply with required mandates and also maintain functional readiness of all fire hydrants, the City of Alamo Heights Fire Department inspects and pressure tests all fire hydrants twice a year. Additionally, twenty percent of all fire hydrants are flow tested for performance and flushed annually. The City's Water Department flushes all of its dead end fire hydrants on a monthly basis. Additional flushing is generally required once a water main break is repaired in order to flush out the system of any debris and air that might have been trapped in the water line. Frequent flushing is also required for areas with older cast iron pipes and areas that are farther away from pump stations. The state requires a minimum level of 0.2 mg/L of chlorine available in the line at all times to kill any bacteria that may try to grow.



Other Ways to Conserve

Outdoors

- Follow the watering times set in the year-round conservation ordinance.
- Don't water during a thunderstorm. Rain sensors installation is required on your irrigation systems.
- Don't water the streets, walkways or driveways.

Bathroom

- Test the toilet for leaks by adding food coloring to the tank. If color appears in the bowl, there is a leak that needs to be repaired.
- Install a low-flow shower head that will limit the flow from the shower to less than three gallon per minute.

Kitchen

- Scrape dishes instead of rinsing them before washing. Only heavily soiled dishes need to be rinsed prior to going into the dishwasher.
- Never run the dishwasher without a full load. This practice will save water, energy, detergent and money.
- Use the garbage disposal or composter sparingly.
- Use a small pan of cold water when cleaning vegetables, rather than letting the water run over them.

Laundry Room

- Wash only full loads to save water and detergent.
- Use the lower water settings whenever you can, especially on partial or lighter loads.

Appliances and Plumbing

- Check water requirements of various models and brands when considering purchasing any new appliances. Some use less water than others.
- Check all water line connections and faucets for leaks. A slow drip can waste as much as 170 gallons of water EACH DAY, or 5,000 gallons per month.
- Be sure the water heater thermostat is not set too high. Extremely hot settings waste water and energy because the water often has to be cooled with cold water before it can be used.



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