



CITY OF GUSTINE

Annual Water Quality Report

Calendar Year 2009

Created June 2010

As a consumer you have right to know the quality of your drinking water. *In order to ensure that tap water is safe to drink the, U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health (CDPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that provide the same protection for public health.*

This report is produced by the City providing information on sources and quality of water, regulations that protect your health, and the treatment of your water to ensure your drinking water meets or surpasses all federal and state water quality standards.

Community Participation/ Questions

For more information about this report or for any questions relating to your drinking water, please call Public Works at 209-854-6183. The City Council meets every first and third Tuesday of the month starting at 7:30 pm, located at 682 Third Ave. The public is encouraged to attend Council meetings to express any comments.

About the Source

The sources of drinking water (both tap 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 naturally-occurring minerals and, in some cases radioactive material, and can pick-up substances resulting from the presences of animals or from human activity.

City of Gustine's Sources

The City's water is supplied from four deep ground water wells located throughout the city. The system is maintained by State certified operators who have had numerous years of experience with water systems.

A Source Water Assessment was completed in March 2003. The sources are considered most vulnerable to the following activities associated with contaminates detected in the water supply: animal feeding operations, lagoons/liquid waste, fertilizers/herbicides/pesticides applications, and sewer collection systems. In addition, the sources are considered most vulnerable to: automobile – gas stations, dry cleaners, known contaminated plumes, and leaking underground storage tanks. Copies of the complete assessment are available at the California Department of Public Health field office (559) 447-3300 or www.cdph.ca.gov.

The City's water supply is disinfected using chlorine in the form of sodium hypochlorite at an average chlorine residual of .4 mg/L (parts per million).

The City monitors current research and regulations on drinking water and enforces the Backflow Prevention and Cross-Connections Program to ensure safe drinking water.

*Este informe contiene información muy importante sobre su agua beber. Tradúzcalo o hable cone alguien que lo entienda bien.

*Este relatório contém informações importantes sobre a sua água potável. Traduza-lo, ou falar com alguém que understans-lo.

Lead & Nitrate Specific Information

** If **lead** is 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. The City of Gustine 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 two (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 Water Drinking Water Hotline or at <http://www.wpa.gov/safewater/lead>*

** **Nitrate** in drinking water at levels above 45 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant or you are pregnant you should ask advice from your health care provider.*

Important Health Information

*Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 from infections; these people should seek advice about drinking water from their health care providers. USEPA/Center for Disease Control (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 (1-800-426-4791)*

What Could Be in Water?

- Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides that 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 that are by-products of industrial processes and petroleum productions, and can also come from gas stations, urban stormwater runoff, agriculture applications, and septic systems.
- Radioactive contaminants that can be naturally-occurring or be the result of oil and gas production and mining activities.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts 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 USEPA's Safe Drinking Water Hotline at (1-800-426-4791).

The following tables list all the drinking water contaminants that were detected during the most recent sampling for the constituents. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department of Public Health requires us to monitor for certain contaminants less than once a year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, are more than one year old.

Chlorine Residuals from the Distribution System

	Year	†Level Detected	Range of Detection	MRDL	MRDLG	Typical Source of Contaminant
Chlorine (ppm)	2009	0.5	.37-.52	4	4	Drinking water disinfectant added for treatment

†The level detected is the highest quarterly result for four (4) quarters of monitoring. Quarterly monitoring is conducted once every three months.

Results for Sodium and Hardness

Constituent	Year	Range of Detection	Average	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	2007-2008	72-300	177.5	none	none	Generally found in ground and surface water.
Hardness (ppm)	2007-2008	<1	<1	none	none	Generally found in ground and surface water.

Primary Drinking Water Standard

Constituent	Year	Range of Detection	Average	MCL	PHG (MCLG)	Typical Source of Contaminant
Fluoride (ppm)	2007-2008	0.16-3	0.2175	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizers and aluminum factories
Nickel (ppb)	2007-2008	<5-5	5	100	12	Erosion of natural deposits; discharge from metal factories
Nitrate (ppm) ¹	2009	23-43	33.67	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Gross Alpha	2005	.96-3.87	1.98425	15		Erosion of natural deposits
Perchlorate (ppb)	2009	ND	ND	6	6	Environmental contaminations from historic aerospace or other industrial operations that used or use, stored or dispose of perchlorate and its salts.

¹ Test results from three of the wells exceed half the MCL for nitrate; additional monitoring samples must be taken.

Secondary Drinking Water Standard¹

Constituent	Year	Range of Detection	Average	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (ppm)	2007-2008	72-380	250.5	500 mg/L	NA	Runoff/leaching from natural deposits; seawater influence
Iron (mg/L)	2007-2008	0-50	22.5	300 ug/L	NA	Leaching form natural deposits; industrial waste
Sulfate (ppm)	2007-2008	130-240	190	500 mg/L	NA	Runoff/leaching from natural deposits; industrial wastes
Specific Conductance (µS/cm)	2007-2008	890-1950	1512.5	1600 µS/cm	NA	Substance that form ions when in water; seawater influences
Total Dissolved Solids (ppm)	2007-2008	600-1200	965	1000 mg/L	NA	Runoff/leaching from natural deposits

¹ No mandatory standard health effects language for these constituents because secondary MCLs are set on the basis of esthetics

*Microbiological Contaminates

Contaminants	Number of Detections	Months in Violation	MCL	MCLG	Typical Source of Contaminant
**Total Coliform bacteria	1	0	More than one (1) sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or E. Coli	0	0	A routine sample and a repeat sample detected total coliform and either resample also detects fecal coliform or <i>E. Coli</i>	0	Human and animal fecal waste

*In the month of March only four (4) samples were taken instead of the mandatory six (6)

** The sample was retaken and found not to be positive. No action was required.

Results for Lead and Copper

Constituents	No of samples collected	90th Percentile Level Detected	Sites exceeding AL	AI	PHG	Typical Source of Contaminant
Lead (ppm)	20	0.0016	0	15	2	Internal corrosion of household water plumbing systems; discharge from industrial manufactures; erosion of natural deposits
Copper (ppm)	20	0.103	0	1	0.2	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservations

Definitions/Abbreviations

- **Maximum Contamination Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set at close to the PHGs (or MCLG) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.
- **Primary Drinking Water Standards (PDWS):** MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- **Secondary Drinking Water Standards (SDWS):** MCLs for contaminants that effect taste, odor or appearance of the drinking water. Contaminants with SDWS do not affect the health at the MCL levels.
- **ND:** not detectable at testing limit
- **ppm:** part per million or milligrams per liter (mg/L)
- **ppb:** parts per billion or micrograms per liter (ug/L)
- **ppt:** parts per trillion or nanograms per liter (ng/L)
- **pCi/L:** Picocuries per liter (a measure of radiation)
- **Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk health. PHGs are set by the California Environmental Protection Agency.
- **Maximum Contaminant Level goal (MCLG):** The level of a contaminant in drinking water below which there is known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).
- **Maximum Residual Disinfectant Level (MRDL):** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The lelve of a disinfectant added for water treatment below which there is no know or expected risk to health. MRDLGs are set by the USEPA.
- **Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Future Projects from Public Works

- The City was awarded a USDA Rural grant/loan to construct a deep ground water well and water storage tank. As part of the grant, our meter reading system and other water related infrastructure will also be updated.
The project is already underway!
- **There will be an increase on water rates as of July 1st. You will see the rate increase on your August 1st bill.**

How to Reduce your Bill?

There are many tricks to lowering your water consumption which can reduce your bill.

- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for about 15 minutes to see if the color shows up in the bowl. Fix it and you may be able to save 200 gallons a day or more.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Then check the meter, after two (2) hours check it again. If it has moved then you have a leak.

<http://www.epa.gov/watersense/>