



ANNUAL  
WATER QUALITY  
REPORT

*Water testing performed in 2005*

*Proudly Presented By:*

CITY OF  
*San Fernando*  
Historic & Visionary

PWS ID#: CA1910143

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

## Substances That Might Be in Drinking Water

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

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Department of Health Services (Department) prescribe regulations that limit the amount of certain substances in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some substances. The presence of contaminants does not necessarily indicate that water poses a health risk.

Substances 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 can result from urban stormwater 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 by-products of industrial processes and petroleum production, and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

**Radioactive Contaminants**, which can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

## Continuing Our Commitment

Once again we proudly present our annual water quality report. This edition covers all testing completed from January through December 2005. We are pleased to inform you that our compliance with all state and federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best quality drinking water to you our customers. We remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users. If you have any health concerns relating to the information in this report, we encourage you to contact your health care provider.

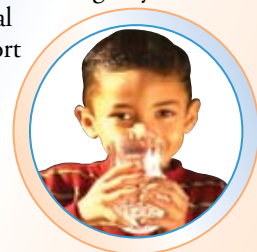
If you should have any questions relating to your drinking water, or for additional information regarding this report you may contact Public Works Superintendent Tony Salazar at (818) 898-1298.

## Community Participation

You are invited to participate at our city council meetings and voice your concerns about your drinking water. The city council meets every first and third Monday of each month beginning at 6 p.m. at City Hall, 117 Macneil Street, San Fernando, CA.

## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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. The U.S. EPA/CDC (Centers for Disease Control) 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 (800) 426-4791.



## How Is My Water Treated and Purified?

The treatment process consists of some basic steps. First, groundwater is drawn from the Sylmar basin; then chlorine is injected in a sodium hypochlorite solution of 0.8% for disinfection (as a precaution against any bacteria that may be present). All of the city's wells utilize an on-site chlorine generation (OSG) system, in which the 0.8% of sodium hypochlorite solution is used as a disinfectant agent. Through an electrolytic process, the OSG operates automatically, requiring only salt, water (softened) and electricity to produce the sodium hypochlorite solution. We carefully monitor on a daily basis the amount of chlorine injected at each well site. Water is then pumped to reservoirs, where it flows by gravity through the distribution system into your home or business. Likewise, chlorine residuals are monitored from the distribution system daily in order to ensure a reliable supply of drinking water.



## Where Does My Water Come From?

The City of San Fernando, incorporated in 1911, provides water service to an area of approximately 2.42 square miles with an approximate population of 24,600 residents. Annually, the city serves 1 billion gallons of water to our customers. San Fernando residents are fortunate to have three sources of water: (1) Local groundwater wells that draw water from the Sylmar basin; (2) Imported water from the Metropolitan Water District (MWD), which delivers surface water from the Joseph Jensen Plant; and (3) A connection from the City of Los Angeles distribution system that is used only in extreme emergencies. In 2005, the City of San Fernando received about 81% of its water supply from local groundwater and the other 19% from MWD surface water.

In this report you will find a summary of water quality data for MWD. However, you may obtain a complete MWD Water Quality Report by calling (818) 898-1298, or by visiting the MWD Web site at [www.mwdh2o.com](http://www.mwdh2o.com) (click on the link for the Annual Water Quality Report).

## Working Hard for You

Under the Safe Drinking Water Act (SDWA), the U.S. Environmental Protection Agency (U.S. EPA) is responsible for setting national limits for hundreds of substances in drinking water and also specifies various treatments that water systems must use to remove these substances. Each system continually monitors for these substances and reports their findings to the U.S. EPA. The U.S. EPA uses these data to ensure that consumers are receiving clean water.

This publication conforms to the regulation under SDWA requiring water utilities to provide detailed water quality information to each of their customers annually. We are committed to providing you with this information about your water supply because customers who are well informed are our best allies in supporting improvements necessary to maintain the highest drinking water standards.

## Source Water Assessment

In August 2002 the California Department of Health Services, Drinking Water Field Operations Branch, Central District, conducted a Drinking Water Source Assessment for the City of San Fernando Water Division. The purpose of the assessment was to determine the vulnerability of our water sources to "possible contaminating activities." The following are the results for wells 2A, 3, 4A, and 7A.

Source	Vulnerability Associated With Detected Contaminants	Vulnerability Not Associated With Any Detected Contaminants
Well 2A	Housing-high density; Parks; Septic systems-high density; Apartments and condominiums	Sewer collection systems
Well 3	Housing-high density; Parks; Septic systems-high density; Apartments and condominiums	Sewer collection systems, Automobile gas stations, Dry cleaners
Well 4A	Sewer collection systems Dry cleaners	None
Well 7A	Housing-high density; Septic systems-high density; Apartments and condominiums	Automobile gas stations

## Table Definitions

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

**MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste and appearance of drinking water.

**MCLG (Maximum Contaminant Level Goal):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. EPA.

**MRDL (Maximum Residual Disinfectant Level):** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

**MRDLG (Maximum Residual Disinfectant Level Goal):** The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

**NA:** Not applicable

**ND:** Not detected

**NS:** No standard

**PDWS (Primary Drinking Water Standard):** MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

**PHG (Public Health Goal):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

**ppt (parts per trillion):** One part substance per trillion parts water (or nanograms per liter).

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

**µmhos/cm (micromhos per centimeter):** A measure of electrical conductance.

## Sampling Results

During the past year we have taken numerous water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

### Primary Drinking Water Standard (Regulated In Order To Protect Against Possible Adverse Health Effects)

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	San Fernando		MWD		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
<b>Aluminum</b> (ppm)	2005	1	0.6	NA	NA	0.055	ND-0.118	No	Erosion of natural deposits; residue from some surface water treatment processes
<b>Bromate</b> (ppb)	2005	10	0	NA	NA	6.8	4.8-8.8	No	By-product of drinking water disinfection
<b>Fluoride [naturally occurring]</b> (ppm)	2005	2.0	1	NA	NA	0.22	0.11-0.27	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
<b>Free Chlorine Residual</b> (ppm)	2005	[4.0]	[4]	1.04	0.01-2.2	NA	NA	No	Drinking water disinfectant added for treatment
<b>Haloacetic Acids <i>five</i> (HAA5)</b> (ppb)	2005	60	NA	0.4	ND-8.5	15	4.6-28	No	By-product of drinking water disinfection
<b>Nitrate (as nitrate, NO<sub>3</sub>)</b> (ppm) <sup>1</sup>	2005	45	45	30.25	16-40	NA	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Nitrate and Nitrite (as nitrogen)</b> (ppm) <sup>1</sup>	2005	10	10	NA	NA	0.54	ND-0.61	No	Runoff and leaching from fertilizer use; sewage; natural erosion
<b>Tetrachloroethylene [PCE]</b> (ppb)	2005	5	0.06	0.6	0.6-0.6	ND	NA	No	Discharge from factories, dry cleaners and auto shops (metal degreaser)
<b>Total Chlorine Residual</b> (ppm)	2005	[4.0]	[4]	1.46	0.01-2.7	2.4	1.5-2.8	No	Drinking water disinfectant added for treatment
<b>Total Chromium</b> (ppb)	2005	50	(100)	3.34	ND-4.2	NA	NA	No	Discharge from steel and pulp mills; erosion of natural deposits
<b>TTHMs [Total Trihalomethanes]</b> (ppb)	2005	80	NA	4.5	ND-30	41	10-75	No	By-product of drinking water chlorination

Tap water samples were collected for lead and copper analyses from 30 homes throughout the service area

SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	PHG (MCLG)	AMOUNT DETECTED (90TH% TILE)	HOMES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
<b>Copper</b> (ppm)	2002	1.3	0.17	0.19	0	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
<b>Lead</b> (ppb)	2002	15	2	1.9	0	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

## Secondary Drinking Water Standard (Regulated In Order To Protect The Odor, Taste And Appearance Of Drinking Water)

SUBSTANCE (UNITS)	YEAR SAMPLED	San Fernando			MWD			VIOLATION	TYPICAL SOURCE
		PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH			
<b>Chloride</b> (ppm)	2005	NS	NA	NA	52	47-65	No	Runoff/leaching from natural deposits; seawater influence	
<b>Color</b> (Units)	2005	NS	NA	NA	2	1-4	No	Naturally occurring organic materials	
<b>Corrosivity</b> (Units)	2005	NS	NA	NA	0.14	0.05-0.25	No	Natural or industrially influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors	
<b>Odor--Threshold</b> (Units)	2005	NS	NA	NA	2	2-2	No	Naturally occurring organic materials	
<b>Specific Conductance</b> (µmhos/cm)	2005	NS	NA	NA	525	477-564	No	Substances that form ions when in water; seawater influence	
<b>Sulfate</b> (ppm)	2005	NS	NA	NA	82	55-102	No	Runoff/leaching from natural deposits; industrial wastes	
<b>Total Dissolved Solids [TDS]</b> (ppm)	2005	NS	NA	NA	302	270-328	No	Runoff/leaching from natural deposits	
<b>Turbidity</b> (Units)	2005	NS	0.17	ND-0.85	0.05	0.04-0.06	No	Soil runoff	

## UNREGULATED SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	San Fernando			MWD			TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH			
<b>Alkalinity</b> (ppm)	2005	NA	NA	NA	89	79-94	NA	
<b>Boron</b> (ppb)	2005	NA	NA	NA	190	170-220	Runoff/leaching from natural deposits; industrial waste	
<b>Bromodichloromethane</b> (ppb)	2005	1.24	ND-5.3	NA	NA	NA	By-products of drinking water disinfection	
<b>Bromoform</b> (ppb)	2005	0.95	ND-12	NA	32	24-37	By-product of drinking water disinfection	
<b>Calcium</b> (ppm)	2005	NA	NA	NA	NA	NA	Erosion/leaching of natural deposits	
<b>Chloroform</b> (ppb)	2005	0.70	ND-2.0	NA	NA	NA	By-product of drinking water disinfection	
<b>Dibromoacetic Acid</b> (ppb)	2005	0.17	ND-4.6	NA	NA	NA	By-product of drinking water disinfection	
<b>Dibromochloromethane</b> (ppb)	2005	1.64	ND-11	NA	NA	NA	By-product of drinking water disinfection	
<b>Dichloroacetic Acid</b> (ppb)	2005	0.12	ND-2.7	NA	NA	NA	By-product of drinking water disinfection	
<b>Hardness</b> (ppm)	2005	NA	NA	NA	138	109-156	Erosion/leaching of natural deposits	
<b>Magnesium</b> (ppm)	2005	NA	NA	NA	14	12-15.5	Erosion/leaching of natural deposits	
<b>N-Nitrosodimethylamine (NDMA)</b> (ppt)	2005	NA	NA	NA	8.0	ND-8.0	NA	
<b>pH</b> (Units)	2005	NA	NA	NA	8.2	8.1-8.3	NA	
<b>Potassium</b> (ppm)	2005	NA	NA	NA	2.9	2.7-3.0	Erosion/leaching of natural deposits	
<b>Sodium</b> (ppm)	2005	NA	NA	NA	48	42-52	Erosion/leaching of natural deposits; sea water influence	
<b>TOC</b> (ppm)	2005	NA	NA	NA	2.6	1.9-3.0	Various natural and manmade sources	
<b>Trichloroacetic Acid</b> (ppb)	2005	0.03	ND-1.20	NA	NA	NA	By-product of drinking water disinfection	

### Footnote:

<sup>1</sup> Nitrate in drinking water at levels above 45 ppm 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 ppm 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.