



ANNUAL
WATER REPORT

*Water testing
performed in 2010*

QUALITY



PWS ID#: 1910143

Quality First Quality

Once again we are proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2010. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Thank you for allowing us to continue providing you and your family with high-quality drinking water.

We encourage you to share your thoughts with us on the information contained in this report. Should you ever have any questions or concerns, we are always available to assist you.

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 23,728 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 2010, the City of San Fernando received 98 percent of its water supply from local groundwater, and 2 percent imported water was purchased from MWD.

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 may 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 and Prevention) 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 or www.epa.gov/drink/hotline/.

Source Water Assessment

In August 2002 the California Department of Public Health, 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

Monitoring Violations

- On May 24, 2010, one out of seven routine bacteriological samples from the distribution system was positive for total coliform but E. coli negative. Following the total coliform positive sample, repeat samples from the distribution must be collected within 24 hours after laboratory notification in accordance with the City-approved Coliform Sample Siting Plan, and additional triggered source E. coli samples must be collected according to the City-approved Groundwater Rule Amendment to the Coliform Sample Siting Plan. Three distribution repeat samples were collected and all results were absent for total coliform. However, we failed to collect E. coli samples from our wells within the required time frame.
- The following month, June 2010, bacteriological samples were collected from the wells and were absent for total coliform. We continue to collect bacteriological samples from our groundwater sources every month.
- In 2010, all of our groundwater wells were not sampled for perchlorate. After being informed of the sampling oversight, samples were immediately collected on March 22, 2011, and results indicated “nondetected” for perchlorate. Historically, perchlorate has never been detected from our groundwater wells. The City resumed annual monitoring for perchlorate in March 2011.

Corrective Action:

City Staff have been trained in the new Groundwater Rule Amendment and the new Perchlorate standard. The new requirements have also been added to the City’s Bacteriological Site Sampling Plan file and monitoring sampling schedule.

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% 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 from the distribution system are monitored daily in order to ensure a reliable supply of drinking water.

Questions?

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) 898-1293.

Community Participation

You are invited to participate at our city council meetings and voice your comments 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.

Lead and Drinking Water

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. We are responsible for providing high-quality drinking water, but we 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.

Substances That Could Be in 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. Environmental Protection Agency (U.S. EPA) and the State Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that 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 contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

Contaminants that may be present in source water include:

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 can 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, 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, that 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.

Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any biological, inorganic, volatile organic, general physical, or disinfection by-product contaminants. The tables below show only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES									
				San Fernando		MWD			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum ¹ (ppb)	2010	1,000	600	NA	NA	82	56–100	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	2010	10	0.004	NA	NA	3.2	2.5–3.2	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Bromate (ppb)	2010	10	0.1	NA	NA	7.2	ND–11	No	By-product of drinking water disinfection
Fluoride (ppm)	2010	2.0	1	0.29	0.18–0.38	0.8	0.6–1.0	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Free Chlorine Residual (ppm)	2010	[4.0]	[4.0]	1.58	0.50–2.90	NA	NA	No	Drinking water disinfectant added for treatment
Gross Alpha Particle Activity (pCi/L)	2010	15	(0)	NA	NA	3.4	ND–7.3	No	Erosion of natural deposits
Gross Beta Particle Activity (pCi/L)	2010	50	(0)	NA	NA	ND	ND–5.2	No	Decay of natural and man-made deposits
Haloacetic Acids (ppb)	2010	60	NA	0.70	ND–3.80	3.7	3.1–4.5	No	By-product of drinking water disinfection
Heterotrophic Plate Count Bacteria ² (CFU/mL)	2010	Surface water treatment=TT	HPC=NA; Others = (0)	NA	NA	ND	ND–2	No	Naturally present in the environment
Nitrate [as N] ³ (ppm)	2010	10	10	NA	NA	0.6	0.5–0.7	No	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate [as NO ₃] (ppm)	2010	45	45	37	20–38	NA	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2010	80	NA	5.6	ND–16.0	20	15–26	No	By-product of drinking water disinfection
Tetrachloroethylene [PCE] (ppb)	2010	5	0.06	0.88	0.88–0.88	NA	NA	No	Discharge from factories, dry cleaners, and auto shops (metal degreaser)
Total Chlorine Residual (ppm)	2010	[4.0]	[4.0]	1.84	0.40–6.0	2.3	1.2–2.9	No	Drinking water disinfectant added for treatment
Total Chromium (ppb)	2010	50	100	3.38	3.10–3.6	NA	NA	No	Discharge from steel and pulp mills; erosion of natural deposits
Total Coliform Bacteria [Total Coliform Rule] (# or % positive samples)	2010	No more than 1 positive monthly sample	(0)	1	NA	1% ⁴	NA	No	Naturally present in the environment
Total Organic Carbon (TOC) (ppm)	2010	TT	NA	NA	NA	1.5	1.3–1.8	No	Various natural and man-made sources
Uranium (pCi/L)	2010	20	0.43	NA	NA	1.8	1.6–2.0	No	Erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	San Fernando			MWD		VIOLATION	TYPICAL SOURCE
			PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Aluminum (ppb)	2010	200	NS	NA	NA	82	56–100	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2010	500	NS	NA	NA	79	67–80	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2010	15	NS	NA	NA	1	1–2	No	Naturally occurring organic materials
Odor–Threshold (TON)	2010	3	NS	0.42	ND–2.0	3	3–3	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2010	1,600	NS	NA	NA	560	500–570	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2010	500	NS	NA	NA	63	55–65	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2010	1,000	NS	NA	NA	310	290–320	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2010	5	NS	0.09	ND–0.34	0.04	0.03–0.08	No	Soil runoff

OTHER SUBSTANCES (MWD)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Alkalinity (ppm)	2010	NA	88	81–99	Naturally occurring
Boron ⁵ (ppb)	2010	NL = 1,000	210	200–220	Runoff/leaching from natural deposits; industrial wastes
Calcium (ppm)	2010	NA	30	26–31	Erosion/leaching of natural deposits
Chlorate ⁵ (ppb)	2010	NL = 1,000	20	26–110	By-product of drinking water chlorination; industrial processes
Chromium VI (ppb)	2010	NA	0.52	0.37–0.45	Industrial waste discharge; can also be naturally present
Corrosivity (as Aggressiveness Index) ⁶ (Units)	2010	NA	12.0	12.0–12.1	Elemental balance in water; affected by temperature and other factors
Corrosivity (as Saturation Index) ⁷ (Units)	2010	NA	0.21	0.15–0.28	Elemental balance in water; affected by temperature and other factors
Hardness (ppm)	2010	NA	120	86–130	Erosion; leaching of natural deposits
Magnesium (ppm)	2010	NA	12	11–12	Erosion; leaching of natural deposits
N-Nitrosodimethylamine (NDMA) (ppb)	2010	NA	0.003	ND–0.005	By-product of drinking water chloramination; industrial processes
pH (Units)	2010	NA	8.2	8.1–8.4	Naturally occurring
Potassium (ppm)	2010	NA	2.7	2.5–2.8	Erosion; leaching of natural deposits
Sodium (ppm)	2010	NA	67	58–65	Erosion; leaching of natural deposits; sea water influence
Vanadium ⁵ (ppb)	2010	NL = 50	5.2	4.8–5.6	Naturally occurring; industrial waste discharge

¹ Aluminum, copper, MTBE, and thiobencarb have both primary and secondary standards.

² All distribution system samples collected had detectable total chlorine residuals, and no HPC was required. HPC reporting level is 1 CFU/mL.

³ State MCL is 45 ppm as Nitrate, which is equivalent to 10 ppm as N.

⁴ Total coliform MCL for MWD: No more than 5.0% of the monthly samples may be total coliform-positive. Compliance is based on the combined distribution system sampling from all the treatment plants. In 2010, 7,727 samples were analyzed and 8 samples were positive for total coliforms. The MCL was not violated.

⁵ NL (Notification Level)

⁶ Measuring unit: AI (Aggressiveness Index); AI < 10.0 = Highly aggressive and very corrosive water; AI > 12.0 = Non-aggressive water; AI (10.0 - 11.9) = Moderately aggressive water

⁷ Measuring unit is SI (Saturation Index) (Langelier)

Definitions

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

CFU/mL (Colony-Forming Units): A measure of viable bacterial or fungal numbers.

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

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 highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): 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 contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

PDWS (Primary Drinking Water Standard): MCLs and MRDLs 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).

TON (Threshold Odor Number): A measure of odor in water.

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