

2002 WATER
QUALITY REPORT

— *Proudly Presented by* —
CITY OF LOMA LINDA

PWS ID#: CA3610013

Continuing Our Commitment

Once again we proudly present our annual water quality report. This edition covers all testing completed from January through December 2002. We are pleased to tell 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 that end, 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.



For more information about this report or if you have any questions relating to your drinking water, please call the City of Loma Linda Utilities Division at (909) 799-4410.

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 to the U.S. EPA if they were detected in the drinking water. 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.

Community Participation

You are invited to participate in our public forum and voice any concerns about your drinking water. We meet the second and fourth Tuesday of each month beginning at 7 p.m. at the City of Loma Linda Council Chamber, 25541 Barton Road, Loma Linda, CA.

Lead in Drinking Water

Lead is a naturally occurring element in our environment. Consequently, our water supply is expected to contain small, undetectable amounts of lead. However, most of the lead in household water usually comes from the plumbing in your own home, not from the local water supply. EPA estimates that more than 40 million U.S. residents use water that can contain lead in excess of EPA's Action Level of 15 ppb.

Lead in drinking water is a concern because young children, infants and fetuses appear to be particularly vulnerable to lead poisoning. A dose that would have little effect on an adult can have a big effect on a small body. On average, it is estimated that lead in drinking water contributes between 10 and 20 percent of total lead exposure in young children.

All kinds of water, however, may have high levels of lead. We maintain our drinking water supply at an optimum pH and mineral content level to help prevent corrosion in your home's pipes. To reduce lead levels in your drinking water you should flush your cold-water pipes by running the water until it becomes as cold as it will get (anywhere from 5 seconds to 2 minutes or longer) and use only water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead.

For more information, please contact National Lead Information Center at (800) LEAD-FYI and the Safe Drinking Water Hotline at (800) 426-4791.

Where Does My Water Come From?

In 2002, the City of Loma Linda customers are fortunate because they enjoy an abundant water supply from six sources. Our six sources are Richardson Wells 1, 3, and 4; Mountain View Wells 3 and 4; and Nicks Well. All of the city's wells are located in the Bunker Hill Basin. The Bunker Hill Basin is a vast natural underground storage area referred to as an aquifer. The Bunker Hill Basin is located from San Bernardino Mountain range to the south hills of Loma Linda. The water that replenishes the Bunker Hill Basin comes from annual rainfall and snow pack from the San Bernardino Mountain range. The wells are located in the North area of the City of Loma Linda.

Loma Linda also uses a supplemental supply of water from the City of San Bernardino Municipal Water Department. Both the City of Loma Linda and the City of San Bernardino Municipal Water Department fall under the same regulations for water set forth by the United State Environmental Protection Agency (U.S. EPA) and the State of California Department of Health Services (CDHS).

Source Water Assessment

To protect and find any potential contamination sources of our water supply, the City of Loma Linda completed a drinking water source assessment. These assessments were completed at the following locations: Mountain View Well #3, November 1999; Richardson Well # 4, February 2000; Mountain View Well #4, May 2000; and Richardson Wells #1 and #3, November 2000.

The drinking water source assessment is the first step in the development of a complete drinking water source protection program. The assessment includes a delineation of the area around a drinking water source through which contaminants move and reach that drinking water supply. In addition, it includes an inventory of activities that might lead to the release of microbiological or chemical contaminants within the delineated area. This helps determine whether the drinking water source might be vulnerable to contamination. All information obtained during the assessment process is provided to CDHS for review.

Perchlorate in the News

Perchlorate is an inorganic chemical used in manufacturing rocket fuels and explosives. At high concentrations in drinking water, it can interfere with the ability of the thyroid gland to produce hormones necessary for normal growth and development. Perchlorate was first detected in drinking water wells in northern California in 1997. It was later detected in many water wells elsewhere in the state, as well as in the Colorado River (an important source of drinking water). The source of contamination of the Colorado River has been determined to be an industrial site in Nevada.

In January 2002 the U.S. EPA revised the health-related guideline for perchlorate. The new guideline indicates that the advisory level issued by the CDHS may be too high, so the agency has reduced the advisory level for perchlorate to 4 ppb. CDHS has not yet issued a maximum contaminant level for perchlorate.

We will be watching this situation closely. We are confident that sufficient action is underway to remove the source of contamination to the Colorado River. Please call us for more information or for an update on the removal process.

Substances Expected to 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 California Department of Health Services (CDHS) prescribe regulations that limit the amount of certain substances in water provided by public water systems. CDHS 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 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 result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

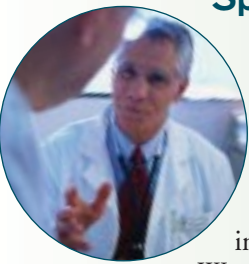
Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can 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.

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

Special 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. USEPA and 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.



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 (2nd MCL) 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.

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.

Naturally Occurring Bacteria

The simple fact is, bacteria and other microorganisms inhabit our world. They can be found all around us: in our food; on our skin; in our bodies; and, in the air, soil and water. Some are harmful to us and some are not. Coliform bacteria are common in the environment and are generally not harmful themselves. The presence of this bacterial form in drinking water is a concern because it indicates that the water may be contaminated with other organisms that can cause disease. Federal regulations now require that public water testing positive for coliform bacteria must be further analyzed for fecal coliform bacteria. Fecal coliform are present only in human and animal waste. Because these bacteria can cause illness, it is unacceptable for fecal coliform to be present in water at any concentration. Our tests indicate no fecal coliform is present in our water.

What's in my Water?

We are pleased to report that during the past year, the water delivered to your home or business complied with, or did better than, all state and federal drinking water requirements. For your information, we have compiled a list in the tables below showing what substances were detected in our drinking water during 2002. Although all of the substances listed below are under the Maximum Contaminant Level (MCL) set by the U.S. EPA, we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

The state requires us to monitor for certain substances less 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.

PRIMARY DRINKING WATER STANDARD (Regulated in order to protect against possible adverse health effects)

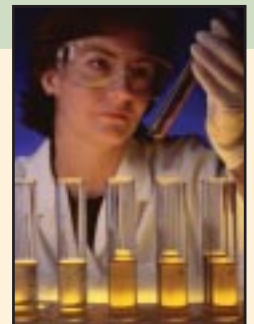
SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	PHG (MCLG)	AMOUNT DETECTED	RANGE (LOW-HIGH)	VIOLATION	TYPICAL SOURCE
Arsenic (ppb) ¹	2001	50	NA	11.05	ND-19	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Dibromochloropropane (ppt)	2002	200	1.7	78	ND-250	No	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit
Dibromochloropropane After TT (ppt)	2002	200	1.7	58	ND-78	No	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit
Fluoride (ppm)	2001	2	1	1.2	ND-3.2	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Fluoride After TT (ppm)	2002	2	1	0.85	0.53-1.2	No	
Nitrate (as nitrate, NO ₃) (ppm)	2001	45	45	16.6	ND-37.4	No	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Turbidity (Units)	2002	5	NS	0.1	ND-0.1	No	Soil runoff

SECONDARY DRINKING WATER STANDARD (Regulated in order to protect the odor, taste and appearance of drinking water)

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	PHG (MCLG)	AMOUNT DETECTED	RANGE (LOW-HIGH)	VIOLATION	TYPICAL SOURCE
Specific Conductance (µmhos/cm)	2001	1,600	NS	370	190-440	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2001	500	NS	36.6	21-43	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids [TDS] (ppm)	2001	1,000	NS	212	190-250	No	Runoff/leaching from natural deposits

UNREGULATED AND OTHER SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED	RANGE (LOW-HIGH)
Alkalinity (ppm)	2002	NS	NS	92	90-130
Bicarbonate (HCO ₃) (ppm)	2002	NA	NS	72	77-160
Calcium (Ca) (ppm)	2002	NS	NS	14.8	4.2-22
Perchlorate (ppb)	2002	4	NS	22	4.46-22
Perchlorate After TT (ppb)	2002	4	NS	ND	ND
Vanadium (ppb)	2002	PAL=50	NS	36.2	11.9-90



¹Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.