



2001 Water Quality Report

Santa Margarita

To our customers

The County of San Luis Obispo is pleased to present this annual report describing the quality of your drinking water. We sincerely hope this report gives you the information you seek and have a right to know.

What is the source of my drinking water?

Your water comes from two groundwater wells located in Santa Margarita. The water is cleaned through a natural filtration process as it trickles down through the ground. During this process, water may also pick up contaminants found in the soil, either natural or man-made. Groundwater is normally very clean and is simply disinfected with chlorine to help minimize viral and bacterial contamination.

Combined, the Santa Margarita wells are capable of producing 500 gallons of water per minute. The wells are routinely monitored for contaminants and the results are submitted to the California Department of Health Services (DHS). The findings are evaluated relative to the California Drinking Water Primary and Secondary Maximum Contaminant Level (MCL) standards. In July and August of 2001, an assessment was completed on Santa Margarita Wells 1, 2 and 4. The assessment was conducted by Boyle Engineering Corporation with assistance from County staff. The assessment included a review of water system information, meetings with water system staff, global positioning system mapping, and field reconnaissance. The field surveys were conducted to locate and assess the vulnerability of the Santa Margarita water system sources to possible chemical contamination. The source assessment concluded that the wells are most vulnerable



Photo by Charles Berna

to the following activities for which no associated contaminant has been detected in the water supply: gasoline station. A copy of the complete assessment is available at:

Department of Health Services,
1180 Eugenia Place, Suite 200
Carpinteria, CA 93013

or

County of San Luis Obispo
Department of Public Works
County Government Center, Room 207
San Luis Obispo, CA 93408.

You may also request a summary of the assessment be sent to you by contacting Kurt Souza, DHS District Engineer, Santa Barbara District at (805) 566-1326, or John Beaton, Water Quality Manager, County of San Luis Obispo at (805) 781-5111.

Where can the community participate in decisions regarding water quality?

This water system is known as County Service Area (CSA) No. 23. The Santa Margarita CSA Advisory Committee meets the first Thursday of every month at 7:00 pm in the Community Hall. The public is welcome to attend.

The San Luis Obispo County Board of Supervisors meets every Tuesday (except the 5th Tuesday in a month) in the board chambers located in the Government Center Annex, 1050 Monterey Street, San Luis Obispo. The Board holds budget hearings during the month of June. Interested persons should check the Board's agendas for specific dates. Agendas for all Board of Supervisors meetings are posted in some County libraries, the County Government Center, and on the Board of Supervisors internet web site at <http://www.co.slo.ca.us>.

Is there a problem with the water quality?

Water from the main well is corrosive, which allows metals from water lines and faucets to dissolve into the water. To render this water less corrosive, a combination of caustic soda and a corrosion inhibitor (polyphosphate) are added. Measured levels of lead and copper at customers' taps have been within allowed levels since the combined corrosion control began.

This same well is shallow and considered to be "under the influence of surface water" which means it is more vulnerable to microbial and other contaminants. In recognition of this, a higher level of disinfectant is maintained and held longer before delivery to customers.

One of the wells in Santa Margarita has high levels of iron and manganese. High iron and manganese levels can cause staining and brown water complaints. This well has filtration equipment that reduces the amount of iron and manganese.

2001 Water Statistics

- **Santa Margarita Water Production**
⇒ **64.61 million gallons**
- **Average Daily Demand**
⇒ **177,015 gallons**

TERMS USED IN THIS REPORT:

Maximum Contaminant Level Goal (MCLG) and Public Health Goal (PHG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the Federal Environmental Protection Agency and PHGs are set by the California Environmental Protection Agency.

Maximum Contaminant Level (MCL) - 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 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 affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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

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

NS (No Standard) - Contaminant for which there is no established MCL.

ND (Not Detected) - Contaminant is not detectable at testing limit.

LI - Langelier Index; Noncorrosive = Any positive value, Corrosive = Any negative value

CU - color units

micromhos/cm - micromhos per centimeter

NTU - Nephelometric Turbidity Unit

pCi/L - picoCuries per liter (a measure of radioactivity)

ppm - parts per million, or milligrams per liter (mg/L)

ppb - parts per billion, or micrograms per liter (µg/L)

TON - Threshold Odor Number



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.

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 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.

In order to ensure that tap water is safe to drink, the USEPA and the California Department of Health Services (DHS) prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. DHS regulations also establish limits for contaminants in bottled water which must provide the same protection for public health.



Tables 1, 2, 3, and 4 list all of the drinking water contaminants that were detected from January 2001 through December 2001, unless otherwise noted. The presence of these contaminants in water does not necessarily indicate that the water poses a health risk. The Department of Health Services requires us to monitor for certain contaminants less than once per 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, may be more than one year old.

Table 1 - Detection of Contaminants with a <u>Primary</u> Drinking Water Standard			Santa Margarita Wells			Potential Source of Contamination
Contaminant (reporting units)	MCL	PHG (MCLG)	Sample Date	Range	Average	
Fluoride (ppm)	2	1	5/10/2000		0.15	Erosion of natural deposits
Gross Alpha particle activity (pCi/L)	15	---	10/2/2000		2.2	Erosion of natural deposits
Nitrate as NO ₃ (ppm)	45	45	---	ND-1.9	0.95	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

Table 2 - Lead, Copper		Santa Margarita Homes				
Contaminant (reporting units)	AL	MCLG	Number of Samples Collected	90th Percentile Level Detected	Number of Sites found above the AL	Potential Source of Contamination
Lead (ppb)	15	2	30	ND	0	Internal corrosion of household water plumbing systems
Copper (ppb)	1300	170	30	860–910	0	Internal corrosion of household water plumbing systems

Table 3 - Detection of Contaminants with a Secondary Drinking Water Standard		Santa Margarita Wells		
Contaminant (reporting units)	MCL	Range	Average	Potential Source of Contamination
Chloride (ppm)	500	20–21	21	Runoff/leaching from natural deposits; seawater influence
Color (CU)	15	1–2	2	Naturally occurring organic materials
Corrosivity (LI)	Noncorrosive	-0.3 - +0.1	-0.2	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors
Manganese (ppb)	50	ND–130*	36	Leaching from natural deposits
Odor - Threshold (TON)	3		1.2	Naturally occurring organic materials
Specific Conductance (micromhos/cm)	1600	540–610	575	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	500	14–73	44	Runoff/leaching from natural deposits; industrial wastes
Turbidity (NTU)	5	0.13–0.61	0.37	Soil Runoff
Total Dissolved Solids (ppm)	1000	410–430	420	Runoff/leaching from natural deposits

Table 4 - Detection of Contaminants without a Drinking Water Standard		Santa Margarita Wells		
Contaminant (reporting units)	Range	Average	Potential Source of Contamination	
Alkalinity as CaCO ₃ (ppm)	270–300	285	Runoff/leaching from natural deposits; seawater influence	
Calcium (ppm)	30–54	42	Runoff/leaching from natural deposits; seawater influence	
Hardness (ppm)	130–300	215	Generally found in ground and surface water	
Total Haloacetic Acids (ppb)	ND–4.6	2	By-product of drinking water chlorination	
Magnesium (ppm)	14–43	28	Runoff/leaching from natural deposits; seawater influence	
pH	7.20–7.71	7.45	Runoff/leaching from natural deposits; seawater influence	
Sodium (ppm)	23–84	54	Runoff/leaching from natural deposits; seawater influence	
Total Trihalomethanes (ppb)	ND–4.8	2.0	By-product of drinking water chlorination	

* Manganese was found at levels that exceed the secondary MCL of 50 ppb. The manganese came from Well #3 which was operated from March 28 through May 17, 2001. Elevated manganese levels can cause staining and brown water complaints in the distribution system. Since violating this MCL does not pose a risk to public health, the State allows the affected community to decide whether or not to treat to remove it. Filtration equipment has been installed on Well #3 to reduce the amount of manganese.



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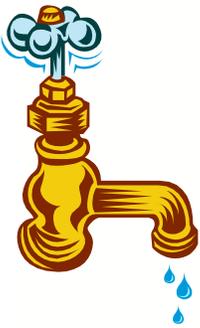
Este informe contiene información muy importante sobre su agua de beber. Tradúzcalo ó hable con alguien que lo entienda bien.

Additional General Information on Drinking Water

All 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, 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-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/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, 1-800-426-4791.

Additionally, the EPA Office of Ground Water and Drinking Water maintains a website with useful information on drinking water. The address is www.epa.gov/safewater/. Additional information can be obtained by accessing the American Water Works Association's website at www.awwa.org, the DHS website at www.dhs.ca.gov/ps/ddwem/index.htm, or by calling John Beaton, Water Quality Manager at 781-5111.



SANTA MARGARITA WATER FACTS

- We use 2 1/2 times as much water in the summer as in the winter
- 2/3 of the summer demand is for landscape water.
- Conserving existing resources reduces the need to develop new, more expensive sources.

Tips to save water, energy, and money

OUTSIDE	INSIDE
Water only as needed	Install low-flow toilets and fixtures
Mulch plants	Wash full loads of dishes and clothes
Water in the morning or evening	Fix leaks
Inspect for leaks and broken, blocked or misaligned sprinklers	Turn off the faucet while washing dishes, shaving, brushing your teeth, or soaping in the shower
Replace unused lawn with a ground cover	Take shorter showers