COUNTY OF SAN LUIS OBISPO

May 2001

# 2000 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.

Photo by Charles Berna

Santa Margarita wells combined are capable of producing 500 gallons of water per minute. Each well is equipped with online monitoring equipment to notify operations staff if there is a problem at the well site. One of the wells has additional equipment which lowers the iron and manganese found in it to aesthetically acceptable levels.

A sanitary survey is scheduled to be completed for the Santa Margarita water system in 2001. The survey will be available for review after completion.

### How is the water system operated?

The Santa Margarita water system is assigned one part-time water treatment operator. All operators who work for the County are certified by the California Department of Health Services (DHS). They are knowledgeable professionals dedicated to maintaining an excellent water system and providing you with the best quality water possible.

### Where is the water tested?

Water sampling and analysis are performed by the San Luis Obispo County Water Quality Laboratory. The lab is certified by the DHS as an environmental testing laboratory for bacteriological and chemical analyses. Federal and State requirements dictate that all regulatory analyses be performed by certified labs following approved procedures.

### Where can the community participate in decisions regarding water quality?

This water system is known as County Service Area (CSA) District No. 23. The Santa Margarita CSA Advisory Committee meets the first Thursday of every month at 7:00 p.m. at 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 will hold budget hearings during the month of June 2001. 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.slonet.org/vv/ipslocao/agendas.html.

### 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, its pH is tempered with caustic soda. A corrosion inhibitor (polyphosphate) is also used. 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.

### 2000 Water Statistics

- **Santa Margarita Water Production**

  ⇒ **67.09 million gallons**

- **Average Daily Demand**

  ⇒ **183,306 gallons**

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

## 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.
**pCi/L:** picoCuries per liter (a measure of radiation)
**ppm:** parts per million, or milligrams per liter (mg/L)
**ppb:** parts per billion, or micrograms per liter (µg/L)
**NTU:** Nephelometric Turbidity Unit
**TON:** Threshold Odor Number
**LI:** Langelier Index; Noncorrosive = Any positive value, Corrosive = Any negative value

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 (Department) prescribes regulations which limit the amount of certain contaminants 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.

**Tables 1,2,3,,and 4 list all of the drinking water contaminants that were detected from January 2000 through December 2000, unless otherwise noted. The presence of these contaminants in water does not necessarily indicate that the water poses a health risk.** The Department 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 Primary Drinking Water Standard** | | | **Santa Margarita Wells** | | |
|---|---|---|---|---|---|
| **Contaminant (reporting units)** | **MCL** | **PHG (MCLG)** | **Range** | **Average** | **Potential Source of Contamination** |
| Fluoride (ppb) | 2000 | 1000 | | 150 | Erosion of natural deposits |
| Gross Alpha particle activity (pCi/L) | 15 | (0) | | 2.2 | Erosion of natural deposits |
| Nitrate as $NO_3$ (ppm) | 45 | 45 | | 6.6 | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits |

| Table 2 – Lead and 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 | 20 | ND | 0 | Internal corrosion of household water plumbing systems |
| Copper (ppb) | 1300 | 170 | 20 | 860 | 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** | **Sample Date** | **Range** | **Average** | **Potential Source of Contamination** |
| Chloride (ppm) | 500 | 5/99 | | 20 | Runoff/leaching from natural deposits; seawater influence |
| Color (CU) | 15 | 5/99 | | 2 | Naturally occurring organic materials |
| Corrosivity (LI) | Noncorrosive | 5/99 | | -0.6 | Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors |
| Odor – Threshold | 3 | 5/99 | | 1.2 | Naturally occurring organic materials |
| Specific Conductance (micromhos/cm) | 1600 | 5/99 | | 652 | Runoff/leaching from natural deposits; seawater influence |
| Sulfate (ppm) | 500 | 5/99 | | 78 | Runoff/leaching from natural deposits; industrial wastes |
| Turbidity (NTU) | 5 | 5/99 | | 0.13 | Soil Runoff |
| Total Dissolved Solids (ppm) | 1000 | 5/99 | | 410 | Runoff/leaching from natural deposits |

| Table 4 – Detection of Contaminants without a Drinking Water Standard | Santa Margarita Wells | | | |
|---|---|---|---|---|
| **Contaminant (reporting units)** | **Sample Date** | **Range** | **Average** | **Potential Source of Contamination** |
| Alkalinity as $CaCO_3$ (ppm) | 5/99 | | 240 | Runoff/leaching from natural deposits; seawater influence |
| Calcium (ppm) | 5/99 | | 54 | Runoff/leaching from natural deposits; seawater influence |
| Hardness (ppm) | 5/99 | | 290 | Generally found in ground and surface water |
| Total Haloacetic Acids (ppb) | ——- | ND—2.7 | 1.4 | By-product of drinking water chlorination |
| Magnesium (ppm) | 5/99 | | 38 | Runoff/leaching from natural deposits; seawater influence |
| pH | ——- | 7.03—7.67 | 7.41 | Runoff/leaching from natural deposits; seawater influence |
| Sodium (ppm) | 5/99 | | 26 | Runoff/leaching from natural deposits; seawater influence |
| Total Trihalomethanes (ppb) | ——- | ND—7.3 | 3.8 | By-product of drinking water chlorination |

## 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 (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).

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

Phone: 805-781-5252
Fax: 805-781-1088
Email: PGarcia@co.slo.ca.us

WE'RE ON THE WEB!
WWW.SLOCOWATERQUALITYLAB.ORG

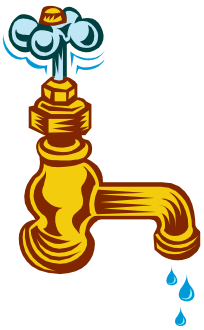


## Additional General Information on Drinking Water (Continued)

Additionally, the Office of Ground Water and Drinking Water at EPA maintains a website with useful information on drinking water. The address is http://www.epa.gov/OGWDW/. Additional information can be obtained by accessing the American Water Works Association's website at http://www.awwa.org or by calling Percy Garcia , Water Quality Manager at 781-5111, John Beaton, Senior Water Systems Chemist at 781-5109, or Faith Zenker, Water Systems Chemist at 781-1576 at the County Water Quality Laboratory.

### Anticipated Projects for 2001 through 2002

- ✓ Groundwater and new source study
- ✓ Installation of new main line valves
- ✓ Sanitary Survey



### In Summary…

The existing water supply in Santa Margarita poses many treatment challenges. Moreover, there are only two wells serving 500 plus service connections and only the larger well can keep up with summertime demands. Supplemental water is a top priority for Santa Margarita, and we are pleased to report acceptance of a $500,000 State loan application to support these efforts.