



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

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COUNTY OF SAN LUIS OBISPO

June 2003

2002 Water Quality Report County Service Area #10A—Cayucos

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

GENERAL DRINKING WATER INFORMATION

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. The USEPA and 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/. Information can also 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 (805) 781-5111.

FOR MORE INFORMATION

If you have questions regarding this report, please contact John Beaton, Water Quality Manager, at (805) 781-5111 or Email: jbeaton@co.slo.ca.us.

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

YOUR WATER SUPPLY

Your water comes from Whale Rock Reservoir and a groundwater well located adjacent to Cayucos on the east side of Highway One. Whale Rock Reservoir has a total capacity of 40,660 acre-feet and is managed by the Whale Rock Commission (City of San Luis Obispo, California Men's Colony, and Cal Poly). No swimming or other body contact sports are allowed on the reservoir in order to minimize viral contamination from human contact. Water from the reservoir is piped downstream to the Cayucos Water Treatment Plant (WTP) where it is filtered and chlorinated prior to distribution.

Treated water is distributed to the Cayucos Area Water Organization (CAWO) which consists of three water agencies: Paso Robles Beach Water Association (PRBWA), Morro Rock Mutual Water Company (MRMWC), and the County of San Luis Obispo County Service Area 10A (CSA-10A). These three agencies have a combined entitlement of 582 acre-feet per year of Whale Rock Reservoir water plus access to groundwater.

The three water agencies monitor their water wells on a regular basis for regulated and unregulated chemicals and evaluate the findings relative to the California Drinking Water Primary and Secondary Maximum Contaminant Level (MCL) standards. These monitoring results are then submitted to the California Department of Health Services.

Source assessments of selected CAWO wells were completed in 2002 by County staff and Boyle Engineering Corporation, with assistance from the CAWO. The wells were CSA 10A Wells No. 2 and 3, PRBWA Well No. 1, MRMWC Wells No. 1 and 3, and the Whale Rock Well. 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 wells to possible contamination. The source assessment concluded that the wells were most vulnerable to the following activities for which no associated contaminant has been detected in the water supply: Sewer collection system, low-density septic systems, agricultural drainage and an agricultural well.

A copy of the complete assessment is available at:

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

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

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

KEY TERMS

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water.

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 United States Environmental Protection Agency and PHGs are set by the California Environmental Protection Agency.

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

Maximum Residual Disinfectant Level Goal (MRDLG) - 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.

Primary Drinking Water Standards (PDWS) - MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.

KEY TERMS (Continued)

Secondary Drinking Water Standards (SDWS) – MCLs for contaminants to protect the taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect 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 that, if exceeded, triggers treatment or other requirement which a water system must follow.

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

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

Not Analyzed (NA) – Contaminant was not analyzed.

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)

CU – color units

NTU – Nephelometric Turbidity Unit

TON – Threshold Odor Number

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

2002 Water Statistics

- **Water Delivered**
⇒ 415.03 Acre-feet
- **Average Daily Demand**
⇒ 1.14 Acre-feet

SOURCES OF 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.

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.

COMMUNITY PARTICIPATION

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 www.co.slo.ca.us.

The Cayucos Citizens Advisory Committee meets the first Wednesday of each month at the Cayucos Veterans Hall at 7:30 pm. The Cayucos Area Water Organization meets the first Monday of each month at the Cayucos Fire Station at 1:30 pm. Information on meeting agendas are published in the newspaper or can be obtained from the County of San Luis Obispo Department of Public Works.

OPERATIONS

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.

WATER TESTING

Water analyses 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.

CAYUCOS MASTER PLAN



The County of San Luis Obispo has prepared a Cayucos Water System Master Plan in order to more effectively plan for capital improvement projects. Data was gathered from available maps, operators, the Fire Department, planning documents, and historical water usage records for Cayucos. An examination of the existing system's ability to meet current and future demands suggests design deficiencies that could result in an inability of the system to meet the community's needs.

The existing system serves 708 residential meters with an average use of 80 gpd and 4 commercial meters with an average use of 667 gpd. The system is unable to meet fire flow demands in several areas due to undersized lines and lack of available storage. At build-out, the system will service 941 residential meters and 8 commercial meters. Upgrades suggested in the Cayucos Water System Master Plan include:

- Looping the waterline on Hacienda to provide an alternate route to and from the storage tank.
- Replacing undersized water lines on Shearer, Gilbert, Richard, Stuart, and Chaney with 8-inch or 6-inch pipes. These replacements will improve flow and aid in providing required fire flow protection.
- Looping the pipeline on Cerro Gordo to provide an alternate route for flow and increase circulation by eliminating a dead-end pipe.
- Replacing the Cemetery water line with an 8-inch pipe.
- Install a new storage tank to increase storage capacity.

In April 2003, the County replaced the Cemetery water line with an 8-inch pipe to improve system reliability. Preliminary work to install a new storage tank is in progress and has been budgeted.

There are several problems noted in the Master Plan that will need further evaluation by County staff. Currently, there is inadequate fire flow protection at the top of Chaney and Gilbert streets. Homes built at the top of Chaney and Gilbert will be in a different pressure zone, and given the high costs of changing the system to accommodate two pressure zones, it is recommended that these homes be equipped with sprinkler systems and/or pressure pumps. Additionally, there is a need for a second source of water supply. Consultants are currently working on a Supplemental Water Plan that would use water from Lake Nacimiento to supply a number of communities, including Cayucos.

2002 Water Quality Data for Cayucos WTP

Tables 1, 2, 3, 4, 5, 6, and 7 list all of the drinking water contaminants that were detected from January 2002 through December 2002, unless otherwise noted. The presence of these contaminants in water does not necessarily indicate that the water poses a health risk. The DHS 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 may be more than one year old, but is still representative of the water quality.

Table 1 - Treatment of Surface Water Sources	
Turbidity Performance Standard - Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Turbidity of filtered water must: <ol style="list-style-type: none"> 1. Be less than or equal to 0.3 NTU in 95% of measurements in a month. 2. Not exceed 1.0 NTU for more than eight consecutive hours. 3. Not exceed 5 NTU at any time. 	Treatment Technique for Cayucos Treatment
Lowest monthly percentage of samples that met Turbidity Performance Standard 1.	100%
Highest single turbidity measurement during the year (<i>Treatment Plant Combined Filter Effluent</i>).	0.14 NTU
The number of violations of any surface water treatment requirement.	0

Table 2 - Microbiological Contaminants					
Contaminant (reporting units)	MCL	PHG (MCLG)	Range	Average	Potential Source of Contamination
Total Coliform Bacteria (MPN/100mL) <i>(CSA-10A Distribution System)</i>	More than 1 sample in a month with a detection	(0)	ND	ND	Naturally present in the environment.
Heterotrophic plate count (CFU/mL) <i>(CSA-10A Distribution System)</i>	TT	(0)	0–20	2	Naturally present in the environment.

Table 3 - Detection of Contaminants with a <u>Primary</u> Drinking Water Standard					
Aluminum (ppb)	1000	600	ND–520	230	Erosion of natural deposits; residue from some surface water treatment processes
Fluoride (ppb)	2000	1000	350–410	380	Erosion of natural deposits
Gross Alpha Particle Activity (pCi/L)	15	-----	ND–2.50 (2001)	1.3	Erosion of natural deposits

Table 4 - Detection of Contaminants with a <u>Secondary</u> Drinking Water Standard					
Aluminum (ppb)	200	-----	ND–520*	230	Residue from some surface water treatment processes
Chloride (ppm)	500	-----	25–41	33	Runoff/leaching from natural deposits
Color (CU)	15	-----	0–1	1	Naturally occurring organic materials
Corrosivity (LI)	Noncorrosive	-----	0.2–1.0	0.6	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors
Odor - Threshold (TON)	3	-----		1.0	Naturally occurring organic materials
Specific Conductance (micromhos/cm)	1600	-----	560–750	660	Runoff/leaching from natural deposits

Contaminant (reporting units)	MCL	PHG (MCLG) or [MRDLG]	Range	Average	Potential Source of Contamination
Sulfate (ppm)	500	-----	42—68	55	Runoff/leaching from natural deposits
Turbidity (NTU) (CSA-10A Distribution System)	5	-----	0.11—0.16	0.14	Soil Runoff
Total Dissolved Solids (ppm)	1000	-----	390—470	430	Runoff/leaching from natural deposits

Total Trihalomethanes (ppb) (CSA-10A Distribution System)	100	-----	64.1—96.3	80.2**	Byproduct of drinking water chlorination.
Haloacetic Acids (ppb) (CSA-10A Distribution System)	-----	-----	25.2—31.0	28.1	Byproduct of drinking water disinfection.
Chlorine (ppm)	-----	[4]	0.60—3.16	1.96	Drinking water disinfectant added for treatment.

Alkalinity as CaCO ₃ (ppm)	-----	-----	230—350	290	Runoff/leaching from natural deposits; seawater influence
Boron (ppb)	AL = 1000	-----	69—140	97	State regulations require us to monitor this contaminant while the State considers setting a limit on it.
Calcium (ppm)	-----	-----	40—57	49	Runoff/leaching from natural deposits; seawater influence
Hardness (ppm)	-----	-----	250—320	290	Generally found in ground and surface water
Magnesium (ppm)	-----	-----	38—47	43	Runoff/leaching from natural deposits; seawater influence
pH	-----	-----	7.47—8.44	7.96	Runoff/leaching from natural deposits; seawater influence
Sodium (ppm)	-----	-----	32—45	39	Runoff/leaching from natural deposits; seawater influence
Vanadium (ppb)	AL = 50	-----	4.0—6.8	5.4	State regulations require us to monitor this contaminant while the State considers setting a limit on it.

Contaminant (reporting units)	AL	MCLG	Number of Samples Collected	Sample Date	90th Percentile Level Detected	Number of Sites Found Above the AL	Potential Source of Contamination
Lead (ppb)	15	2	10	Aug/Sep 2002	ND	0	Internal corrosion of household water plumbing systems
Copper (ppb)	1300	170	10	Aug/Sep 2002	110	0	Internal corrosion of household water plumbing systems

* Aluminum was found at levels that exceed the secondary MCL of 200 ppb; the aluminum MCL was set to protect you against unpleasant aesthetic effects such as color, taste, and odor. The high aluminum levels are due to residue from the water treatment process. 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.

**In 2004, the Cayucos system will be required to meet the new Federal MCL of 80 ppb as an running annual average (RAA). The County is currently investigating the use of ozone, granulated activated carbon, chloramination, or operational changes to the system to reduce trihalomethane formation. Some people who use water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.