

Annual
WATER
QUALITY
REPORT

Reporting Year 2013



Presented By
City of San Luis Obispo



PWS ID#: 4010009

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

There When You Need Us

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2013. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please remember that we are always available to assist you should you ever have any questions or concerns about your water.

Community Participation

City Council meetings are held on the first and third Tuesdays of each month at 7:00 pm at City Hall, 990 Palm Street, San Luis Obispo. A public comment period is held at the beginning of each meeting.

Where Does My Water Come From?

The City of San Luis Obispo is fortunate to have several sources of water. The Salinas Reservoir (also known as Santa Margarita Lake, eight miles east of Santa Margarita), Whale Rock Reservoir (Cayucos), and Nacimiento Lake (16 miles northwest of Paso Robles) are our main supplies. The surface water from the three lakes is treated at the Stenner Creek Water Treatment Plant. At present, well water is used to meet a small percentage (1%) of the city's demand for water. The active well is the Pacific Beach Well #1 (Los Osos Valley Road). During 2013, our treatment plant and wells delivered 2.04 billion gallons of water to San Luis Obispo.

Drinking Water Fluoridation

The City adds fluoride to the treated water produced by the water treatment plant to help prevent dental caries in consumers. Some limited areas along Los Osos Valley Road receive a blend of surface water and groundwater that may have a lower fluoride residual. State regulations require the fluoride levels in the treated water be maintained within a range of 0.7 - 1.3 ppm with an optimum dose of 0.8 ppm. Our monitoring showed that the fluoride levels in the treated water ranged from 0.0 - 0.9 with an average of 0.44 ppm. Information about fluoridation, oral health, and current issues is available from www.cdph.ca.gov/certlic/drinkingwater/Pages/Fluoridation.aspx.

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 <http://water.epa.gov/drink/hotline>.

SLO Water Supply Looks Good Despite Driest Year on Record

In early 2014, the Governor declared a state of drought emergency but although we hear the desperate stories of State water shortages, your local water supply remains reliable and secure. The City of San Luis Obispo's conservation efforts and multisource water supply strategy are paying off.

Our worst case drought of record occurred from 1987-1991, with an average annual rainfall of only 13 inches. In comparison, the average rainfall for the last four years was approximately 20 inches. Assuming we're in a drought just as severe, we still have an estimated 7.5 years worth of water in our reservoirs as of January 2014. Mandatory conservation actions would only be required in the last three of those years. This is good news for San Luis Obispo.

While our memories can quickly fade, the 1987-1991 drought had a profound impact on San Luis Obispo, and those who experienced it can vividly recall the effects. The subsequent decisions made and actions taken by the City Council, community members, and staff to secure reliable water resources for this community are now bearing fruit.

The City now has five water sources to meet community water demand: Salinas, Whale Rock, and Nacimiento Reservoirs; recycled water (for irrigation); and groundwater. Your water supply is reliable and secure – including enough water for new development. Your investment in a multisource water supply allows for responsible use even during a dry year. As always, use it wisely and efficiently.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please contact Dean Furukawa, Water Treatment Plant Supervisor, at (805) 781-7566 or dfurukawa@slocity.org.

Source Water Assessment

An assessment of the drinking water sources for the City of San Luis Obispo was conducted in March 2014. The surface water sources, Salinas Reservoir and Whale Rock Reservoir, are considered most vulnerable to the following activities although no associated contaminants have been detected: cattle grazing and historic mining activities. To request a summary of the assessment, contact Kurt Souza, District Engineer, Santa Barbara District, at (805) 566-1326, or the City of San Luis Obispo at (805) 781-7215.

A copy of the complete assessment is available from Department of Health Services, 1180 Eugenia Place, Suite 200, Carpinteria, CA 93013; or the City of San Luis Obispo, 879 Morro Street, San Luis Obispo, CA 93401.

Lead in Home Plumbing

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 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 California 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 radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected 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.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppm)	2013	1	0.6	0.14	ND–0.30	No	Erosion of natural deposits; residue from some surface water treatment processes
Barium (ppm)	2013	1	2	0.0874	0.0486–0.129	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chlorine (ppm)	2013	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.73	0.1–1.5	No	Drinking water disinfectant added for treatment
Chromium (ppb)	2013	50	(100)	6.33	ND–14	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Control of DBP precursors [TOC] ¹ (% removal)	2013	TT	NA	27.1	20–43	No	Various natural and man-made sources
Fluoride (ppm)	2013	2.0	1	0.44	ND–0.9	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2011	15	(0)	0.0145	ND–0.029	No	Erosion of natural deposits
Haloacetic Acids–Stage 1 & Stage 2 (ppb)	2013	60	NA	14.6	ND–27	No	By-product of drinking water disinfection
Nickel (ppb)	2013	100	12	1.67	1.0–2.0	No	Erosion of natural deposits; discharge from metal factories
Nitrate [as nitrate] (ppm)	2013	45	45	4.97	0.4–7.5	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	2013	50	30	1.0	ND–3.0	No	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
TTHMs [Total Trihalomethanes]–Stage 1 & Stage 2 (ppb)	2013	80	NA	61.9	37.9–85.7	No	By-product of drinking water disinfection
Turbidity ² (NTU)	2013	TT	NA	0.13	0.05–0.13	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2013	TT=95% of samples <0.3 NTU	NA	100%	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2013	1.3	0.3	0.144	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2013	15	0.2	0.9	0/30	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2013	200	NS	141	ND–300	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2013	500	NS	27.7	19–34	No	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (micromhos)	2013	1,600	NS	673	524–830	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2013	500	NS	55.7	30–78	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2013	1,000	NS	377	310–460	No	Runoff/leaching from natural deposits

¹Total organic carbon (TOC) has no health effects. However, TOC provides a medium for the formation of disinfection by-products such as TTHMs and HAA5s. The City's TOC reduction requirement varied from 25% to 30% on a running annual average calculated quarterly.

²Turbidity 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.

Definitions

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

micromhos: A measure of electrical conductance.

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).

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