



ANNUAL  
**WATER REPORT**  
*Reporting Year 2011*

PWSID#: 4010016

This report was prepared by:  
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Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

## Providing High Standards with Basin to Bay Stewardship

Once again the Los Osos Community Services District (LOCSD) is proud to present our Annual Water Quality Report for your water service area. This report covers all testing performed between January 1 and December 31, 2011. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. 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. Thank you for allowing us to continue providing you with high-quality drinking water.

Please share with us your thoughts or concerns about the information in this report. After all, well-informed customers are our best allies.



For more information about this report, or for any questions relating to your drinking water, please call Francis M. Cooney, Interim General Manager, at (805) 528-9370.

## Community Participation

You are invited to participate in our public Board of Directors (BOD) meetings and voice your concerns about your drinking water. We meet the first Thursday of each month beginning at 7 p.m. at the South Bay Community Center, 2180 Palisades Avenue, Los Osos, CA. Also standing committees operating in an advisory capacity to our BOD on District policy meet once a month in the LOCSD office located at 2122 9th Street, Suite 102, Los Osos, CA. Please check our web site for specific meeting dates and times at [www.losososcsd.org](http://www.losososcsd.org)

## A Message About Outdoor Water Usage

The LOCSD encourages water conservation and water-wise gardening practices. Xeriscape landscaping is defined as “Quality landscaping that conserves water and protects the environment.” This type of landscaping includes the practices of appropriate plant selection based on soil analysis, efficient irrigation, and use of mulches. For those customers who like green lawns, the following guidelines for pop-up sprinkler systems will help save water and maintain a beautiful lawn.

SPRING: Mar - May: 12 minutes/day 2x week (Wednesday, Sunday);

SUMMER: Jun - Aug: 14 minutes/day 4x week (Monday, Wednesday, Friday, Sunday);

FALL: Sep - Oct: 12 minutes/day 3x week (Wednesday, Friday, Sunday);

WINTER: Nov - Feb: Off

For more information regarding water conservation ideas, feel free to visit our web site at <http://www.losososcsd.org/cm/utilities/water-conservation.html>.

## Where Does My Water Come From?

The LOCSD water system uses five source wells. Water delivered to LOCSD customers is groundwater that originates from the Los Osos Valley Basin. The five water well sites are known as the 8th Street Well, 3rd Street Well, 10th Street Well, Palisades Well, and South Bay Well. The groundwater basin is a collection of local drainage basins, streams, creeks, and natural percolation from rain, agricultural, and domestic use. 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 naturally occurring minerals, substances resulting from the presence of animals, or from human activity. Groundwater is normally very clean and is minimally disinfected to help reduce the chance of any viral or bacterial contamination.

Each well is equipped with on-line devices for operations and monitoring purposes. An alarm system is integrated in the monitoring process to notify operators if there is a problem at any well site or facility. The South Bay and 8th Street wells have additional filtration equipment designed to remove iron and manganese found in these two wells to aesthetically acceptable levels.

Utilities Department Water Resource Operators are responsible for treatment of the five groundwater supply wells. They are also responsible for water quality monitoring, sampling, distribution system repair and maintenance, meter reading, and regulatory reporting compliance. The delivery of water to the District's water customers is through a network of over 27 miles of water mainlines connected through approximately 2,750 water service lines and meters serving residences and commercial businesses. Included in the domestic water service infrastructure are three water storage tanks, 165 fire hydrants with 558 valves, and a booster pump station that includes domestic and fire pumps to improve the water pressure in the hydropneumatic pressure zone; all of this equipment requires periodic maintenance and inspection. These services provided by the Utilities Department personnel not only assure delivery of pure, wholesome potable drinking water, but also provide the water essential for fire fighting.

## 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 State 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 can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems; and 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.



### How much water does a person use every day?

The average person in the U.S. uses 80 to 100 gallons of water each day. During medieval times, a person used only 5 gallons per day.

### How long does it take a water supplier to produce one glass of water?

It can take up to 45 minutes to produce a single glass of drinking water.

### How much emergency water should I keep?

Typically, 1 gallon per person per day is recommended. For a family of four, that would be 12 gallons for 3 days. Humans can survive without food for 1 month, but can survive only 1 week without water.

### Where does a water molecule spend most of its time on Earth?

In a 100-year period, a water molecule spends 98 years in the ocean, 20 months as ice, about 2 weeks in lakes and rivers, and less than a week in the atmosphere.

### How many community water systems are there in the U.S.?

About 53,000 public water systems across the United States process 34 billion gallons of water per day for home and commercial use. Eighty-five percent of the population is served by these systems.

## General Water System Statistics For Calendar Year 2011

We've been busy in 2011!

Total Water Production in 2011: 248.42 million gallons (MG)

Average Daily Demand in 2011: 680,595 gallons

Month of Maximum Usage 2011: July

Amount of Water Usage in July 2011: 26.87 MG

Total Well Capacity: 1,760 gallons per minute

Total Storage Capacity: 1.3 MG

## 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>.

## 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 we 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](http://www.epa.gov/safewater/lead).

## Source Water Assessment

A Source Water Assessment Plan (SWAP) is available at our office. This plan is an assessment of the area around our potable water wells through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility to contamination by the identified potential sources. According to the Source Water Assessment Plan, our water system had a susceptibility rating of "medium." If you would like to review the Source Water Assessment Plan, please feel free to contact our office during regular office hours.

## 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 tables below show only those contaminants that were detected in the water. The state allows us to monitor for certain substances less often 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
Fluoride (ppm)	2011	2.0	1	0.117	0.083–0.156	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2004	15	(0)	0.73	0.05–1.61	No	Erosion of natural deposits
Nitrate [as nitrate] (ppm)	2011	45	45	16.12	0.47–34.7	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrite [as nitrogen] (ppm)	2011	1	1	ND	<1–<1	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radium 228 (pCi/L)	2004	5	0.019	ND	NA	No	Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2011	80	NA	ND	<1–4.5	No	By-product of drinking water disinfection
Total Coliform Bacteria [Total Coliform Rule] (# positive samples)	2011	No more than 1 positive monthly sample	(0)	0	NA	No	Naturally present in the environment

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)	2010	1.3	0.3	0.86	0/20	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2010	15	0.2	5	1/20	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
Chloride (ppm)	2011	500	NS	141	35–398	No	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	2011	300	NS	42.4	6–420	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2011	50	NS	ND	<5–82	No	Leaching from natural deposits
Odor–Threshold (TON)	2011	3	NS	1.2	1–1.7	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2011	1,600	NS	884	453–1,730	No	Substances that form ions when in water; seawater influence
Total Dissolved Solids (ppm)	2011	1,000	NS	470	250–890	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2011	5	NS	0.0875	0.05–0.15	No	Soil runoff
Zinc (ppb)	2011	500	NS	ND	<25–91	No	Runoff/leaching from natural deposits; industrial wastes

## OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Hardness as CaCO <sub>3</sub> (ppm)	2011	NS	NS	350	160–780	No	Leaching from natural deposits

### Definitions

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

**µS/cm (microsiemens per centimeter):** A unit expressing the amount of electrical conductivity of a solution.

**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.

**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).

**TON (Threshold Odor Number):** A measure of odor in water.