



# County of San Luis Obispo—Department of Public Works County Service Area 16—Shandon 2009 Water Quality Report

June 2010

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

## 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



**View from the Shandon water tank.**

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 United States Environmental Protection Agency (USEPA) and the California Department of Public Health (CDPH) prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water which must provide the same protection for public health.

## YOUR WATER SUPPLY

Your water comes from two groundwater wells located in Shandon, which tap into the Paso Robles Groundwater basin. The water is cleaned through a natural filtration process as it trickles down through the ground. During this process, water may also pick up minerals or 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. Several studies have been done on the Paso Robles Groundwater

Basin and can be found online at [www.slocountywater.org](http://www.slocountywater.org) and also in the Shandon Community Library.

Source water assessments were completed for each well (Well #4 and Well #5) in 2002. The wells are considered to be most vulnerable to the following activities: grazing, utility stations-maintenance areas, historic gas stations, and high density septic systems. Other than low levels of nitrate, no contaminants associated with these activities have been detected in the water.

A copy of the assessment is available from the following places.

Kurt Souza, Regional Engineer Santa Barbara District, California Department of Public Health at 805-566-1326 or John Beaton, Water Quality Manager, County of San Luis Obispo Department of Public Works (805) 781-5111.

### *Water Statistics*

#### **2008**

Total Production

52.1 million gallons

Average Daily Demand

142,340 gallons

#### **2009**

Total Production

50.4 million gallons

Average Daily Demand

138,033 gallons

The table lists all of the drinking water contaminants that were detected in your water in 2009, unless otherwise noted. The presence of these contaminants in water does not necessarily indicate that the water poses a health risk. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, although representative, may be more than one year old. For questions about this data, contact John Beaton, Water Quality Manager, at (805) 781-5111 or email JBeaton@co.slo.ca.us.

REGULATED CONTAMINANTS WITH PRIMARY MCLs, MRDLs, TTs or ALs								
Contaminant	Where sampled	When sampled	Reporting units	MCL	PHG (MCLG)	Range detected	Average detected	Potential Source of Contamination
<b>MICROBIOLOGICAL CONTAMINANTS</b>								
Total Coliform Bacteria (Total Coliform Rule)	Distribution	2009	Present or absent	> 1 positive sample per month	(0)	Absent	Absent	Naturally present in the environment
Heterotrophic Bacteria	Distribution	2009	CFU/mL	TT = < 500	-----	ND—34	3	Naturally present in the environment
<b>INORGANIC CONTAMINANTS</b>								
Arsenic	Wells	2008	ppb	10	0.004	2—3	2.5	Erosion of natural deposits
Barium	Wells	2008	ppm	1	2	0.17—0.19	0.18	Erosion of natural deposits
Fluoride	Wells	2008	ppm	2.0	1	0.12—0.13	0.13	Erosion of natural deposits
Nitrate as NO <sub>3</sub>	Wells	2009	ppm	45	45	10.7—18.3	14.5	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
<b>RADIOACTIVE CONTAMINANTS</b>								
Gross Alpha Particle Activity	Wells	2003 - 2004	pCi/L	15	-----	ND—3.92	ND	Erosion of natural deposits
Radium 228	Wells	2004	pCi/L	5	-----	ND—1.22	ND	Erosion of natural deposits
<b>DISINFECTANT RESIDUALS and DISINFECTION BYPRODUCTS</b>								
Chlorine	Distribution	2008	ppm	4.0 as Cl <sub>2</sub>	4 as Cl <sub>2</sub>	1.0—1.7	1.4	Drinking water disinfectant added for treatment.
<b>CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD (AESTHETICS)</b>								
Chloride	Wells	2009	ppm	500	-----	61.7—114	87.8	Runoff/leaching from natural deposits
Color	Distribution	2009	CU	15	-----	ND—1	ND	Naturally occurring organic materials
Odor – Threshold	Distribution	2009	TON	3	-----	1.0—1.7	1.2	Naturally occurring organic materials
Specific Conductance	Wells	2009	µS/cm	1600	-----	620—830	720	Runoff/leaching from natural deposits
Turbidity	Distribution	2009	NTU	5	-----	0.04—0.55	0.14	Soil runoff
Total Dissolved Solids	Wells	2009	ppm	1000	-----	390—550	470	Runoff/leaching from natural deposits
Sulfate	Wells	2009	ppm	500	-----	73.6—123	98.3	Runoff/leaching from natural deposits
<b>UNREGULATED CONTAMINANTS</b>								
Total Alkalinity as CaCO <sub>3</sub>	Wells	2009	ppm	NS	-----	96—110	103	Runoff/leaching from natural deposits; seawater influence.
Calcium	Wells	2009	ppm	NS	-----	67—92	80	Runoff/leaching from natural deposits.
Total Hardness	Wells	2009	ppm	NS	-----	190—260	220	Generally found in ground and surface water; seawater influence.
Magnesium	Wells	2009	ppm	NS	-----	4.5—7.7	6.1	Runoff/leaching from natural deposits; seawater influence.
pH	Wells	2009	-----	NS	-----	7.65—7.67	7.66	Runoff/leaching from natural deposits; seawater influence.
Sodium	Wells	2009	ppm	NS	-----	47—56	52	Runoff/leaching from natural deposits; seawater influence.

## SHANDON NOTES

The water in Shandon meets all Federal and State drinking water requirements and overall can be considered very good water. However, Shandon's water is considered to be hard, with an average concentration of 220 parts per million (13 grains per gallon). Hardness in water is usually associated with two naturally occurring minerals – calcium and magnesium. Hard water can inhibit the cleaning action of soaps and cause scale formation on plumbing fixtures. It is purely a matter of preference whether an individual chooses to reduce the hardness of the water by using a water softener. A typical home water softener unit replaces the calcium and magnesium ions in the water with sodium, however, this kind of softener generates waste with a high salt concentration that deteriorates ground water quality, and so is not recommended. Alternative, non-salt generating systems are recommended if you choose to use a softener.

**KEY TERMS and ABBREVIATIONS**

**CU** - color units

**CFU/mL**—number of colony forming units per milliliter of sample

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

**MCLG (Maximum Contaminant Level Goal) and**

**PHG (Public Health 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 United States Environmental Protection Agency and PHGs are set by the California Environmental Protection Agency.

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

**MRDLG (Maximum Residual Disinfectant Level Goal)** - 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.

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

**NL (Notification)** – The concentration of a contaminant that, if exceeded, triggers treatment or other requirement which a water system must follow.

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

**NTU** - Nephelometric Turbidity Unit

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

**ppb** - parts per billion, or micrograms per liter ( $\mu\text{g/L}$ )

**ppm** - parts per million, or milligrams per liter ( $\text{mg/L}$ )

**Primary Drinking Water Standards** – MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

**Secondary Drinking Water Standards** – MCLs for contaminants to protect the taste, odor, or appearance of the drinking water.

**TON** - Threshold Odor Number

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

**$\mu\text{S/cm}$** — microSiemens per centimeter ( $1 \text{ S} = 1 \text{ ohm}^{-1}$ )  
A measure of electrical conductance.

**DRINKING WATER AND HEALTH RISKS**

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).

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.

The County of San Luis Obispo is 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 (1-800-425-4791) or at <http://www.epa.gov/safewater/lead>.

**OPERATIONS**

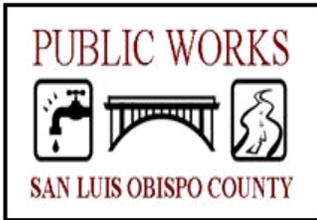
The Shandon water system is assigned one primary operator who, like all operators who work for the County, is certified by the California Department of Public Health (CDPH). Our operators are knowledgeable professionals who have many years of experience, and are dedicated to maintaining an excellent water system and providing you with the best quality water possible.

Operators conduct weekly inspections of the wells, tank, and distribution system to ensure a safe and reliable water supply. In addition, the CDPH routinely inspects the facilities, operating procedures, and water quality monitoring records to verify compliance with state and federal regulatory requirements. The CDPH inspected the Shandon system in 2008 and found that the water served, the water system facilities, and the water system operations met the CDPH standards for drinking water.

**SHANDON IMPROVEMENTS**

Several system improvements are planned, which will be phased in over the next several years. Planned improvements include installation of a second storage tank to improve fire flows, looping of mains to eliminate dead ends and improve water quality, and security system improvements. County staff are aggressively pursuing grants and loans to help pay for these improvements.





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#### **Internet**

USEPA Office of Ground Water and Drinking Water  
[www.epa.gov/safewater/](http://www.epa.gov/safewater/)  
California Department of Public Health  
[www.cdph.ca.gov/programs/Pages/DDWEM.aspx](http://www.cdph.ca.gov/programs/Pages/DDWEM.aspx)  
San Luis Obispo County Public Works Department  
[www.slocountywater.org](http://www.slocountywater.org)

#### **Telephone**

John Beaton, SLO County Water Quality Manager, 805-781-5111.

**We're on the Web! [www.slocountywater.org](http://www.slocountywater.org)**

## **COMMUNITY PARTICIPATION**

The governing body for Shandon is the San Luis Obispo County Board of Supervisors. The Board meets every Tuesday (except the 5th Tuesday in a month) at 9:00 a.m. in the new Government Center, 1055 Monterey Street, San Luis Obispo. Agendas for Board of Supervisors meetings are posted in some County libraries, the County Government Center, and on the County's website at [www.slocounty.ca.gov](http://www.slocounty.ca.gov).

The Shandon Community Advisory Council meets the first Wednesday of every month at 7:00 pm in the Clubhouse in the Crawford W. Clarke Park. You can contact the advisory council by email at [shandoncouncil@yahoo.com](mailto:shandoncouncil@yahoo.com), or at P.O. Box 92, Shandon, 93461. Advisory council recommendations are considered by the Board of Supervisors when they make decisions that affect Shandon, including the water system.

The North County Water Forum meets periodically to discuss water issues related to the Paso Robles Groundwater basin, which is the source for Shandon's drinking water. Current topics include the development of a Groundwater Management Plan and a Resource Capacity Study for the basin. All interested parties are invited to attend. To get on the contact list for upcoming meetings, please contact Courtney Howard, SLO County Water Resources Engineer, at (805) 781-1016, or via email ([choward@co.slo.ca.us](mailto:choward@co.slo.ca.us)).