County of San Luis Obispo
Department of Public Works
County Government Center, Room 206
San Luis Obispo, CA 93408
www.slocounty.ca.gov/PW.htm

Water Quality Report

SLO CSA Number 23 – Santa Margarita

System number CA4010024

2014

Public Works is a valued community partner enhancing quality of life for our fellow county residents.

CSA 23: SANTA MARGARITA

Your 2014 Water Quality Report

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 informacíon muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Santa Margarita News

THE COUNTY OF SAN LUIS OBISPO PUBLIC WORKS DEPARTMENT RECEIVES PRESTIGIOUS APWA ACCREDITATION

The County of San Luis Obispo Public Works and Transportation Department has received Accreditation from the American Public Works Association (APWA). It is only the 96th Agency nationwide and 4th California County to achieve this rare honor.

APWA accreditation is an objective evaluation of an agency and how they conduct their work. It is a means of formally verifying and recognizing public works agencies for compliance with recommended practices. Initial accreditation covers a four year period and the department will be reviewed every four years for re-accreditation to demonstrate continuing compliance.

CONSERVATION EFFORTS UNDERWAY IN SANTA MARGARITA

Santa Margarita's current total water use is about 110 gallons per capita per day (gpcd). This number reflects the total water sales (including residential, commercial, industrial and other water uses) divided by the total population and tells us the number of gallons of water used by the community per person each day. Residential use is about 85 gpcd.

The Department of Public Works previously issued an "ALERT" status regarding the current drought emergency and requested Santa Margarita water customers voluntarily conserve water. It is recommended that we reduce our water use starting now by at least 15% in an effort to avoid the need for mandatory measures later. Additionally, the State's goal is 20% reduction in water use by all.

The graph above illustrates that residents and businesses of Santa Margarita are already doing a great job using water wisely compared to the average water customer in California; however, because the shallow groundwater basin below Santa Margarita is the only water source for our community and the region could be facing a severe drought, further reducing water use is essential as well as good practice for making water conservation a daily habit.

To achieve the recommended 15-20% reduction, Santa Margarita residents need to save about 20 gallons per person a day. There are several easy ways to achieve this….shorter showers, fewer flushes, don't let the water run, and fix those leaks!

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On January 17, 2014, the Governor declared a drought emergency for all of California. On July 15, 2014, the State Water Resources Control Board approved an emergency regulation to ensure water agencies, their customers, and state residents increase water conservation in urban setting or face possible fines or other enforcement. On April 1, 2015, the Governor issue Executive Order B-29-15 directing urban water suppliers to develop rate structures and other pricing mechanisms, including but not limited to surcharges, fees, and penalties to maximize water conservation

Saving water is an easy way to stretch our water supply. Please conserve and help protect our vital water source.

RESTRICTIONS ON WATER USE:

- **WATER OUTDOORS ONLY ON MONDAYS AND THURSDAYS**
- **NO WATERING OF OUTDOOR LANDSCAPES THAT CAUSE RUNOFF**
- **NO USE OF HOSES WITHOUT SHUT-OFF NOZZLES**
- **NO USE OF WATER IN A FOUNTAIN OR DECORATIVE WATER FEATURE, UNLESS THE WATER IS RECIRCULATED**
- **NO WASHING OF DRIVEWAYS AND SIDEWALKS**
- **NO IRRIGATION OUTDOORS DURING AND WITHIN 48 HOURS FOLLOWING MEASUREABLE RAINFALL**

Local agencies can fine those who violate the individual prohibitions up to $500 a day. Thank you for your help during this drought emergency. For more information, contact (805) 781-4466 or visit www.swrcb.ca.gov or www.slocountywater.org .

Water Statistics (January to December)

Year	Total Production, million gallons	Average Daily Demand, gallons (all uses)	Estimated gallons per customer per day (residential)
2013	58.4	160,000	82
2014	52.8	145,000	85

Thank you for doing your part to conserve water!

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YOUR WATER SUPPLY

Your water comes from two groundwater wells located in Santa Margarita, Well #3 and Well #4. 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 the risk from viral and bacterial contamination.

Well #3 is a deep, fractured-rock well. Because the untreated water can sometimes exceed the Secondary Drinking Water Standard for iron (300 ppb), Well #3 water is treated to lower the iron to acceptable levels.

Well #4 is a relatively shallow well that pumps water from the alluvial deposits of Santa Margarita Creek. This well is considered to be under the influence of surface water. In order to meet State standards for viral inactivation, the water must pass through a disinfection loop to increase contact time with the chlorine.

Well #4 is treated with caustic soda for adjustment of pH. Both wells are treated with potassium ortho-phosphate, a corrosion inhibitor, to meet the Federal Lead and Copper Rule. To demonstrate continued compliance, we are required to maintain specific ortho-phosphate and pH levels in the distribution system to help reduce copper levels at the consumer's tap. Santa Margarita fully complies with the Lead and Copper Rule requirements.

A watershed sanitary survey and a source water assessment have been conducted on the Santa Margarita system. The studies are updated by County staff every five years. The last update was completed in March 2011. The studies identify potential sources of contamination or contaminating activities in the watershed and assess their impact on the water system. The studies included a review of water system information, input from operations staff, findings from field surveys, and recommendations for future surveys. No significant changes in the watershed were noted in the last update. The wells continue to be most vulnerable to the following activities for which no associated contaminant has been detected in the water supply: one gasoline station.

ADDITIONAL INFORMATION

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, 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 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, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that 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 U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health. State Board regulations also establish limits for contaminants in bottled water that 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. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Key Terms and Abbreviations

CFU/ml – Colony Forming Units per milliliter.

CU – Color Units.

LRAA – Locational Running Annual Average. An average of quarterly samples from a particular monitoring location for a period of one year.

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 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. Environmental Protection Agency.

mg/L – Milligrams per Liter.

mL – Milliliter.

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.

MPN/100mL – Most Probable Number of organisms in a 100 mL sample.

NA – Not Analyzed.

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

NTU – Nephelometric Turbidity Unit.

pCi/L – picocuries per liter (a measure of radioactivity).

PDWS – Primary Drinking Water Standards. MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements. PDWS pertain to the following: Filtration Performance, Microbiological Contaminants, Inorganic Contaminants, Radioactive Contaminants and Disinfection Byproducts, Disinfection Residuals, and Disinfection Byproduct Precursors.

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 Environmental Protection Agency.

ppb – parts per billion, or micrograms per liter (µg/L).

ppm – parts per million, or milligrams per liter (mg/L).

Primary MCL – Maximum contaminant level 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.

RAL – Regulatory Action Level. The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

Secondary MCLs – Maximum contaminant level for contaminants to protect the taste, odor, or appearance of the drinking water. Contaminants with secondary MCLs do not affect health at the MCL levels.

SWRCB – State Water Resources Control Board

TON – Threshold Odor Number.

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

µS/cm – microsiemens per centimeter (unit of specific conductance of water).

µg/L – Micrograms per Liter.

USEPA – United States Environmental Protection Agency.

WATER QUALITY DATA

These tables list all of the drinking water constituents that were detected in your water in 2014, unless otherwise noted. The presence of these substances in water does not necessarily indicate that the water poses a health risk. The State allows us to monitor for some constituents less than once per year because the concentrations do not change frequently. Some of our data, may be more than one year old but remains representative. For questions about this data, contact the Water Quality Laboratory at (805) 781-5111 or email PW_SLO_WQL@co.slo.ca.us.

REGULATED CONSTITUENTS WITH PRIMARY MCLs, MRDLs, TTs or RALs

Constituent (Unit)	Where sampled	MCL or [MRDL]	PHG (MCLG) or [MRDLG]	Range detected	Average detected	Potential Source of Contamination
Turbidity Monitoring						
Turbidity (NTU)	Well 4	TT = 1 TT = 95% of samples ≤ 0.3 NTU	----- -----	0.03 – 0.28 -----	0.07 100%	Surface water runoff
Microbiological						
Total Coliform Bacteria (Present or Absent)	Distribution	> 1 positive sample per month	(0)	-----	ND	Naturally present in the environment
Heterotrophic Bacteria (CFU/mL)	Distribution	TT = < 500	N/A	ND—180	4	Naturally present in the environment
Inorganic						
Arsenic (ppb)	Wells (2012)	10	0.004	ND – 7.5	4.1	Erosion of natural deposits
Fluoride (ppm)	Wells	2	1	ND – 0.075	0.038	Erosion of natural deposits
Nitrate as NO_3 (ppm)	Wells	45	45	ND – 2.99	1.50	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radioactivity						
Gross Alpha Particle Activity (pCi/L)	Wells	15	N/A	0.24 – 1.66 (2004)	1.00	Erosion of natural deposits

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Constituent (Unit)	Where sampled	MCL or [MRDL]	PHG (MCLG) or [MRDLG]	Range detected	Average detected	Potential Source of Contamination
Disinfectant Residuals and Disinfection Byproducts						
Chlorine (ppm)	Distribution	[4.0 as Cl2]	[4 as Cl2]	0.90 – 2.20	1.50	Drinking water disinfectant added for treatment.
Haloacetic Acids (ppb)	Distribution	LRAA = 60		ND (2013)	ND (a)	Byproduct of drinking water disinfection
Total Trihalomethanes (ppb)	Distribution	LRAA = 80		ND – 6.7 (2013)	3.4 (a)	Byproduct of drinking water disinfection

CONSTITUENTS WITH A SECONDARY DRINKING WATER STANDARD (AESTHETICS)

Constituent (Unit)	Where sampled	MCL or [MRDL]	Range detected	Average detected	Potential Source of Contamination
Chloride (ppm)	Wells	500	19.1 – 19.9	19.5	Runoff/leaching from natural deposits
Color (CU)	Distribution	15	ND - 2	ND	Naturally occurring organic materials
Iron (ppb)	Wells	300	ND - 280 (Raw)[(b)] ND - 58 (Treated)	140 (Raw) ND (Treated)	Runoff/leaching from natural deposits
Odor – Threshold (TON)	Distribution	3.0	ND - 2.5	1.0	Naturally occurring organic materials
Manganese (ppb)	Wells	50	ND – 8 (Raw) ND – 34 (Treated)	ND (Raw) ND (Treated)	Runoff/leaching from natural deposits
Specific Conductance (µS/cm)	Wells	1600	600 – 700	660	Runoff/leaching from natural deposits
Sulfate (ppm)	Wells	500	15.7 – 58.1	36.9	Runoff/leaching from natural deposits
Total Dissolved Solids (ppm)	Wells	1000	350 - 390	370	Runoff/leaching from natural deposits
Turbidity (NTU)	Distribution	5	0.04 - 0.41	0.12	Soil runoff

Footnotes:

a) Monitoring requirement not met for 2014. See page 9.

b) Raw water values are prior to treatment to remove iron and manganese.

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UNREGULATED CONSTITUENTS

Constituent (Unit)	Where sampled	MCL or [MRDL]	Range detected	Average detected	Potential Source of Contamination
Total Alkalinity as $CaCO_3$ (ppm)	Wells	NS	262 - 278	270	Runoff/leaching from natural deposits; seawater influence.
Calcium (ppm)	Wells	NS	30 - 50	40	Runoff/leaching from natural deposits.
Total Hardness (ppm)	Wells	NS	163 - 288	226	Generally found in ground and surface water; seawater influence.
Magnesium (ppm)	Wells	NS	19.1 - 39.9	29.5	Runoff/leaching from natural deposits; seawater influence.
pH	Wells	NS	6.92 – 7.76	7.35	Runoff/leaching from natural deposits; seawater influence.
Sodium (ppm)	Wells	NS	27 - 76	52	Runoff/leaching from natural deposits; seawater influence.

Lead and Copper in Customers' Homes (2014)

Contaminant (Units)	RAL	PHG	Number of Samples Collected	90th Percentile Level Detected	Number of Sites found above the NL	Potential Source of Contamination
Lead (ppb)	15	0.2	10	ND	0	Internal corrosion of household water plumbing systems
Copper (ppb)	1300	300	10	550	0	Internal corrosion of household water plumbing systems

Corrosion Control Monitoring

Contaminant (Units)	Where sampled	MCL or [MRDL]	Range detected	Average detected	Potential Source of Contamination
Ortho-phosphate (ppm)	Distribution	Optimal Range (average 1.5 to 2.2)	1.8 - 2.4	2.0	Byproduct of drinking water treatment.
pH	Distribution	Optimal Range (average 7.4 to 8.0)	7.48 - 7.90	7.66	Runoff/leaching from natural deposits; seawater influence.

MONITORING REQUIREMENTS NOT MET FOR SANTA MARGARITA

In January, 2015 we became aware that our system recently failed to collect the correct number of drinking water samples. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we are doing to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 2014 we did not test for disinfection byproducts (DBPs) (total trihalomethanes and haloacetic acids) and therefore cannot be sure of the quality of your drinking water during that time. However, in the past 14 years, 25 samples have been collected and all results were low, making the system eligible for USEPA reduced monitoring. For systems such as ours with low DBPs, the USEPA has required that samples need to be collected every three years. California has adopted a more strict monitoring program and requires yearly sampling. We failed to collect the first yearly required sample for DBPs.

What should I do?

There is nothing you need to do at this time. You may continue to drink the water. This is a failure of a monitoring requirement, not a failure of your water quality. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

What is being done?

We will implement yearly monitoring this year and will continue to monitor on a yearly schedule.

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. The 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).

The water delivered to Santa Margarita customers meets the Federal and State drinking water requirements and overall can be considered very good water. The following are a few parameters that may be of interest to you.

Iron - Well #3 is a deep well that when untreated, can sometimes exceed the Secondary Drinking Water Standard for iron (300 ppb). In 2014, the **untreated** water iron levels ranged from ND to 280

ppb. Elevated iron levels can cause discoloration of clothing, water faucets, and toilets. For this reason, Well #3 has iron removal equipment installed at the well site. After treatment, iron in the water average 13 ppb. Water from Well #3 is always treated before it is delivered to the consumer.

Arsenic - Water from Well #3 contains low levels of arsenic, which are further reduced by the iron removal treatment. Well #3 **meets** the federal and state standard for arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Nitrate - Nitrate in drinking water at levels above 45 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. Nitrate levels may change quickly in response to rainfall or agricultural activity.

Lead and Copper - If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water typically comes 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 household 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.

SOURCE WATER PROTECTION TIPS FOR CONSUMERS

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.

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WATER CONSERVATION TIPS FOR CONSUMERS

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today and soon it will become second nature.

- Take short showers – a 5 minutes shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair, or shaving, and save up to 500 gallons a month.
- Use a water-efficient showerhead. They are inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.

Make it a family effort to reduce next month's water bill! Visit http://www.epa.gov/watersense/ for more information.

COMMUNITY PARTICIPATION

The Santa Margarita CSA 23 Advisory Committee meets the first Thursday of every month at 7:00 pm in the Community Hall on the corner of I and Murphy Streets. The public is welcome to attend.

The San Luis Obispo County Board of Supervisors meets every Tuesday (except the 5th Tuesday in a month) at 8:30am in the board chambers located in the new County Government Center, 1055 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 http://www.slocounty.ca.gov/bos.htm.

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CONTACT INFORMATION

Internet

USEPA Office of Ground Water and Drinking Water
http://water.epa.gov/drink/index.cfm

California State Water Resources Control Board (SWRCB)
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/publicwatersystems.shtml

San Luis Obispo County Public Works Department
www.slocounty.ca.gov/PW.htm

SLO County Water Quality Laboratory
805-781-5111
PW_SLO_WQL@co.slo.ca.us
http://slocountywater.org/WQL/wql.html

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