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 2018

YOUR 2018 WATER QUALITY REPORT

The County of San Luis Obispo is pleased to present this 2018 annual report describing the quality of your drinking water. Included are details about where your water comes from, what it contains, and how it compares to State standards. Our dedicated staff work hard every day to maintain your water system and deliver the best quality water to you and your family. 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.***

Your Water Supply

Your water comes from two groundwater wells located in Shandon which tap into the Paso Robles Groundwater Basin. Your water is normally very clean and is simply disinfected with chlorine to help minimize the potential for viral and bacterial contamination. Since May of 2017, the water you have been receiving has been a blend of water from the State Water Project and Shandon's well water. The State Water Project is operated by the Central Coast Water Authority (CCWA) Polonio Pass Water Treatment Plant. The CCWA was formed to treat and deliver water from the State Water Project to San Luis Obispo and Santa Barbara counties. Source water for the Polonio Pass plant comes from the California State Water Project operated by the California Department of Water Resources. The State Water Project consists of 21 different reservoirs throughout the State. Water is conveyed to the Polonio Pass WTP by the Coastal Branch Aqueduct completed in 1997. Additional information on the State Water Project can be found at: https://www.water.ca.gov/Programs/State-Water-Project

Source water assessments were completed for both of Shandon's wells in 2002. The wells were most vulnerable to the following activities: animal grazing, utility stations, septic systems, parks, fire station, historic gas station, fertilizer/pesticide/herbicide application, underground storage tank, and above ground storage tank. 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 **State Water Resources Control Board at (805) 566-1326** or from the **County of San Luis Obispo Department of Public Works** at**:**

http:/www.slocounty.ca.gov/Departments/Public-Works/Services/Watershed-Sanitary-Surveys.aspx

Important Health Information

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 (Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome) 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 **USEPA Safe Drinking Water Hotline 1 (800) 426-4791.**

Additional General Information on 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.

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 (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The SWRCB 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.**

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.

Nitrate Health Risks in Drinking Water

Nitrate in drinking water at levels above 10 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 10 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. In 2018, Shandon well water nitrate levels ranged from 3.25 – 4.96 mg/L. The CCWA treated water did not detect nitrates.

Lead Health Risks in Drinking Water

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 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) 426-4791) or at http://www.epa.gov/safewater/lead.

The following tables are a snapshot of drinking water constituents that were detected in your water in 2018, unless otherwise noted. The State allows us to monitor for some substances less than once per year because the concentrations do not change frequently. Some of our data, although representative, may be more than one year old. The presence of these substances detected in water does not necessarily indicate that the water poses a health risk. For questions about this data, please contact the **Water Quality Laboratory at (805) 781-5111**.

Regulated Contaminants with Primary Drinking Water Standards						
Constituent (units)	**MCL,TT, or [MRDL]**	**PHG, (MCLG), or [MRDLG]**	**Range and Average Detected**	**CSA16 Wells (Treated)**	**CCWA State Project (Treated)**	**Potential Sources of Contamination**
Plant Filter Performance						
Combined Filter	TT=<1 NTU every 4 hours	NA	Range	NA	0 - 0.13	Soil runoff
Effluent Turbidity (NTU)	TT=95% of samples <0.3 NTU	NA	%	NA	100%	
Microbiological Monitoring						
Total Coliform Bacteria (Present or Absent)	>1positive per month	MCLG = (0)	Range	ND	NA	Naturally present in the environment
			Average	ND	NA	
	5.0% of monthly samples	MCLG = (0)	Range	NA	0	Naturally present in the environment
			Average	NA	0	
Heterotrophic Bacteria (CFU/mL)	TT = <500	NA	Range	0 - 120	0 - 1	Naturally present in the environment
			Average	10	0	
Constituent (units)	**MCL,TT, or [MRDL]**	**PHG, (MCLG), or [MRDLG]**	**Range and Average Detected**	**CSA16 Distribution**	**CCWA State Project (Treated)**	**Potential Sources of Contamination**
Distribution System Monitoring						
Total Chlorine Residual (ppm)	MRDL = [4.0]	MRDLG = [4.0]	Range	0.91 - 2.81	1.76 - 3.2	Drinking Water Disinfectant added for treatment
			Average	2.07	2.32	
Chloramines (ppm)	MRDL = [4.0]	MRDLG = [4.0]	Range	0.93 - 2.25	NA	Drinking Water Disinfectant added for treatment
			Average	1.33	NA	
Total Trihalomethanes (ppb)	80	80	Range	38.4	27 - 50	By-product of drinking water chlorination
			Average	N/A	39	
			Highest LRAA	N/A	42.8	
Haloacetic Acids (ppb)	60	60	Range	11.5	8.3 - 12	By-product of drinking water chlorination
			Average	N/A	10	
			Highest LRAA	N/A	13.1	
Inorganic Chemicals						
Aluminum (ppm)	1	0.6	Range	ND	ND - 0.095	Residue from water treatment process; erosion of natural deposits
			Average	ND	0.058	
Arsenic, Total (ppb)	10	0.004	Range	2.2 - 2.3	ND	Erosion of natural deposits; runoff from orchards
			Average	2.2	ND	
Barium (ppm)	10	0.004	Range	0.130	ND	Erosion of natural deposits; discharge of oil drilling wastes
			Average	0.130	ND	
Fluoride (ppm)	2.0	1	Range	0.152 - 0.153	ND	Erosion of natural deposits; water additive that promotes strong teeth
			Average	0.152	ND	
Nitrate as Nitrogen (ppm)	10	10	Range	3.25 - 4.96	ND	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
			Average	3.88	ND	
Radionuclides				***Data from 2016**		
Gross Alpha Particle (pCi/L)	15	MCLG = (0)	Range	1.69 - 2.07*	ND	Decay of natural and man-made deposits
			Average	1.88*	ND	
Gross Beta Particle (pCi/L)	50	MCLG = (0)	Range	---	ND	Decay of natural and man-made deposits
			Average	---	ND	
Lead and Copper Monitoring at the Consumers' Tap - Distribution (Sampled in 2017)						
Constituent (Unit)	**Number of Samples**	**90th percentile**	**Action Level**	**PHG**	**# of sites exceeding AL**	**Potential Source of Contamination**
Lead (ppb)	10	0.62	15	0.2	None	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppb)	10	53	1300	300	None	

Lead and Copper in Public Schools: *Per California Assembly Bill 746 (AB 746) and at the request of the Shandon Joint Unified School District, twenty samples were collected from various sites at Shandon Elementary School, Shandon High School, Shandon School District Residences, and the CW Clarke Park. Below is a summary of the lead and copper results.*

Regulated Contaminants with Primary Drinking Water Standards continued

Lead and Copper Monitoring at the Consumers' Tap – Shandon School District (Sampled in 2018)

Constituent (Unit)	Number of Samples	90th percentile	Action Level	PHG	# of sites exceeding AL	Potential Source of Contamination
Lead (ppb)	20	4.3	15	0.2	None	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppb)	20	98	1300	300	None	

SECONDARY STANDARDS - Aesthetic Standards

Constituent (units)	Secondary MCL	Range and Average Detected	CSA16 Wells (Raw)	CSA16 (Distribution)	CCWA State Project (Treated)	Potential Sources of Contamination
Aluminum (ppb)	200	Range	ND	---	ND - 95	Erosion of natural deposits; residual from some surface water treatment processes
		Average	ND	---	58	
Chloride (ppm)	500	Range	61.0 - 129	---	39 - 140	Runoff/leaching from natural deposits; seawater influence
		Average	95.0	---	81	
Color (ACU)	15	Range	ND - 2	ND - 2	ND	Naturally occurring organic materials
		Average	ND	ND	ND	
Odor Threshold (TON)	3	Range	ND - 1.5	ND - 3.5	2	Naturally occurring organic materials
		Average	0.8	1.4	2	
Specific Conductance (µS/cm)	1600	Range	610 - 820	---	294 - 592	Substances that form ions when in Water; seawater influence
		Average	720	---	481	
Sulfate (ppm)	500	Range	74.5 - 97.9	---	55	Runoff/leaching from natural deposits; industrial wastes
		Average	86.2	---	55	
Total Dissolved Solids (ppm)	1000	Range	390 - 610	---	220	Runoff/leaching from natural deposits;
		Average	500	---	220	
Turbidity (NTU)	5	Range	0.04 - 0.57	0.05 - 0.54	ND - 0.12	Soil runoff
		Average	0.17	0.18	0.05	
ADDITIONAL PARAMETERS (Unregulated)						
Alkalinity, Total as CaCO3 (ppm)	NA	Range	98 - 106	---	44 - 78	Runoff/leaching from natural deposits; seawater influence
		Average	102	---	61	
Calcium (ppm)	NA	Range	74 - 110	---	14	Runoff/leaching from natural deposits; seawater influence
		Average	92	---	14	
Chromium, Hexavalent (ppb)	NA	Range	0.47 - 0.63*	---	0.058	Erosion of natural deposits
		Average	0.60*	---	0.058	
Corrosivity (Aggressive Index)	NA	Range	non-corrosive	---	non-corrosive	Balance of hydrogen, carbon, & oxygen in water, affected by temperature, other factors
		Average	non-corrosive	---	non- corrosive	
Hardness (Total) as CaCO3 (ppm)	NA	Range	208-290	---	64 - 140	Leaching from natural deposits
		Average	249	---	96	
Heterotrophic Plate Count (CFU/mL)	TT ≤ 500	Range	ND - 49	ND - 47	ND - 1	Naturally present in the environment
		Average	7	13	ND	
Magnesium (ppm)	NA	Range	6.0	---	7.7	Runoff/leaching from natural deposits; seawater influence
		Average	6.0	---	7.7	
Manganese, Total (ppb)	NA	Range	ND	---	ND	Runoff/leaching from natural deposits; seawater influence
		Average	ND	---	ND	

*Last sampled in 2017

ADDITIONAL PARAMETERS (Unregulated) continued						
pH	NA	Range	7.58 - 7.64	---	7.8 - 8.7	Runoff/leaching from natural deposits; seawater influence
		Average	7.61	---	8.3	
Potassium (ppm)	NA	Range	---	---	1.8	Runoff/leaching from natural deposits; seawater influence
		Average	---	---	1.8	
Sodium (ppm)	NA	Range	44 - 60	---	40	Runoff/leaching from natural deposits; seawater influence
		Average	52	---	40	
Total Organic Carbon, TOC (ppm)	TT	Range	---	---	1.6 - 3.2	Various natural and man-made sources
		Average	---	---	2.1	
Geosmin (ng/L)	NA	Range	---	---	ND - 1	Naturally occurring compounds produced by soil or decaying organic matter and/or blue-green algae.
		Average	---	---	0.6	
2-Methylisoborneol (ng/L)	NA	Range	---	---	ND - 1	
		Average	---	---	0.4	

The Utilities Division Water Quality Laboratory provides laboratory and technical services to support the beneficial management of water and wastewater for the present and future residents of the County of San Luis Obispo.

TERMS AND ABBREVIATIONS

Acre-foot – 325,851 gallons
$CaCO_3$ – Calcium carbonate
CCWA– Central Coast Water Authority
DLR – Detection Level for purposes of Reporting
ELAP - Environmental Laboratory Accreditation Program
LRAA – Locational Running Annual Average. Compliance based on the running quarterly annual average of distribution system samples.
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.
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.
MPN/100 mL – Most Probable Number per 100 milliliters
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. Contaminant is not detectable at testing limit.
NS – No Standard
NTU – Nephelometric Turbidity Unit. A measure of water clarity.
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.
SMGA – Sustainable Groundwater Management Act
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. For microbiological and turbidity contaminants, the raw water will be treated at a water treatment facility or used for groundwater recharge prior to use.
µS/cm – microsiemens per centimeter (unit of specific conductance of water).
µg/L – Micrograms per Liter.
USEPA – United States Environmental Protection Agency
WTP – Water Treatment Plant

Operations

Shandon is assigned three operators who are certified by the California State Water Resources Control Board (SWRCB). Our operators are knowledgeable professionals dedicated to maintaining an excellent water system and providing you with the best quality water possible. Operators conduct weekly inspections of the wells, tanks and distribution system. In addition, the SWRCB routinely inspects the facilities, operating procedures, and water quality monitoring records to verify compliance with state and federal regulatory requirements.

COMMUNITY PARTICIPATION

The County of **San Luis Obispo Board of Supervisors** meets every Tuesday (except the 5th Tuesday in a month) in the board chambers located in the County Government Center at 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 www.slocounty.ca.gov.

The **Shandon Community Advisory Council** meets the first Wednesday of every month at 7:00 p.m. in the Clubhouse in the Crawford W. Clarke Park. You can contact the advisory council by **email at 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 management of the Paso Robles Groundwater Basin, which has been the main source for Shandon's drinking water, is now subject to a new State law called the **Sustainable Groundwater Management Act** (SGMA). To stay apprised of activities associated with implementation of SGMA, please join our mailing list at: http://www.slocountywater.org/site/Water%20Resources/SGMA/.

SYSTEM PROJECT NEWS

Shandon has Increased the Use of their State Water Allotment

Since the beginning of May 2017, the water you have been receiving has been a blend of water, 67% from Shandon's wells and 33% from the CCWA State Water Project (CCWA). In 2018, Shandon increased its use of CCWA water. The water delivered was a blend of 61% CCWA water and 39% from Shandon's wells. Both the State Water Project and Shandon's well water use chloramines for disinfection. Chloramines, a combination of chlorine and ammonia in water, have been used to treat drinking water for over 90 years. Chloramines have been proven to effectively kill microorganisms while producing lower levels of disinfection byproducts such as trihalomethanes (TTHMs) and haloacetic acids (HAAs), which are potentially harmful constituents.

As with chlorine, the presence of chloramines requires additional precautions for some water users. **If a member of your household requires dialysis at home**, you should contact your physician or dialysis service provider to assure proper protective equipment is used during the treatment. **If you use tap water for fish or other aquatic animals** that use gills for breathing, you need to test and be sure chlorine and chloramines are completely removed before use. Your local pet store can provide information and products for the proper removal of chlorine and chloramines. **If you own a pool or spa,** you will probably need to add more chlorine to your water to obtain a free chlorine residual. Contact your pool or spa supply dealer for information.

Water that is disinfected with chloramines **is perfectly safe for people** (including dialysis patients) **and their pets to drink and to use for all normal everyday activities** - cooking, bathing, cleaning, etc.

ATENCIÓN:

El Nuevo desinfectante va afectar a pasientes que estan recibiendo tratamientos de Dyalises, o si usted tienen pescados, spa o alberca. Por favor llame a Antonio at 788-2954 por mas information en Espanol.

A COMPARISON OF SHANDON'S WATER USAGE

CSA16 - SHANDON Water Statistics (January - December)					
Year	Annual Consumption (million gallons)	Annual Consumption (acre-feet)	Average Daily Demand (gallons)	Gallons per day per person	Percent Change from Previous Year
2016	36.0	110	98,300	78	4.6% Increase
2017	32.5	99.7	89,000	71	9.6% Decrease
2018	26.1	80.0	71,160	57	19.7% Decrease

CONTACTS FOR ADDITIONAL INFORMATION

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
County of San Luis Obispo Water Quality Laboratory: http://slocountywater.org/WQL/wql.html

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

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