

WATER QUALITY REPORT

2022



Your 2022 Water Quality Report

The County of San Luis Obispo is pleased to present this 2022 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 información muy importante sobre su agua para beber. Favor de comunicarse County Service Area 16 - Shandon a Department of Public Works at (805) 781-2954 para asistirlo en español.***

Your Water Supply

Source water for Shandon 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 or chloramine to help minimize the potential for viral and bacterial contamination. A portion of your water may come from 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>.

In 2022, the Shandon groundwater wells were the primary source of water. No water was used from CCWA.

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:

<https://www.slocounty.ca.gov/Departments/Public-Works/Forms-Documents/Water-Resources/Drinking-Water-Source-Assessments/Shandon-DWSAP.pdf>

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.
- Turbidity is a measure of cloudiness of water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfections.

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 2022, Shandon well water nitrate levels ranged from 3.6 – 4.8 mg/L.

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>.



County of San Luis Obispo CSA 16 Shandon - CCR 2022

The following tables are a snapshot of drinking water constituents that were detected in your water in 2022, 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**.

Constituent (unit)	MCL, TT, or [MRDL]	PHG, (MCLG), or [MRDLG]	Range and Average Detected	Wells	Distribution (Treated)	Potential Sources of Contamination
Regulated Contaminants with Primary Drinking Water Standards						
Microbiological						
Total Coliform Bacteria (Present or Absent)	>1 positive per month	MCLG = (0)	Range	< 1 - Present ¹	Absent	Naturally present in the environment
			Average	< 1	Absent	
<i>E. coli</i> Bacteria (Present or Absent)	0	MCLG = (0)	Range	Absent	Absent	Human and animal fecal waste
			Average	Absent	Absent	
Heterotrophic Bacteria (CFU/mL)	TT = <500	NA	Range	ND - 220	ND - 6	Naturally present in the environment
			Average	21	ND	
Turbidity (NTU)	TT = 0.5	NA	Range	0.06 - 1.5 ²	0.06 - 0.76 ³	Soil runoff
			Average	0.33	0.13	
Inorganic Chemicals						
Nitrate as Nitrogen (mg/L)	10	10	Range	3.6 - 4.8	----	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
			Average	4.15	----	
Nitrite as Nitrogen (mg/L)	1	1	Range	ND - 0.4	----	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
			Average	ND	----	
Radionuclides (Collected in 2020)						
Gross Alpha Particle (pCi/L)	15	MCLG = (0)	Range	5.2 - 5.3	----	Decay of natural and man-made deposits
			Average	5.3	----	
Total Radium (pCi/L)	5	N/A	Range	0.018 - 0.055	----	Erosion of natural deposits
			Average	0.036	----	
Uranium (pCi/L)	20	0.43	Range	2.19 - 2.25	----	Erosion of natural deposits
			Average	2.22	----	
Distribution System Disinfectant Residuals and Disinfection Byproducts						
Free Chlorine Residual (mg/L)	MRDL = [4.0]	MRDLG = [4.0]	Range	1.05 - 1.99	0.91 - 1.78	Drinking Water Disinfectant added for treatment
			Average	1.38	1.28	
Total Trihalomethanes (µg/L)	80	NA	Range	----	2.7	By-product of drinking water chlorination
			Average	----	2.7	
Haloacetic Acids (µg/L)	60	NA	Range	----	ND	By-product of drinking water chlorination
			Average	----	ND	

Lead and Copper Monitoring at the Consumers' Tap - Distribution (Collected in 2020)

Constituent (unit)	Number of Samples	90th percentile	Action Level	PHG	Potential Source of Contamination
Lead (µg/L)	10	ND	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (mg/L)	10	0.15	1.3	0.3	

¹ Well sample was recollected the next day and results were < 1 MPN/100mL for Total Coliform and *E. coli*

² Field turbidity verified at site < 0.5 NTU

³ Field turbidity verified at site < 0.5 NTU



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.

Lead and Copper Monitoring at the Consumers' Tap – Shandon School District (Collected in 2018)						
Constituent (unit)	Number of Samples	90th percentile	Action Level	PHG	# of sites exceeding AL	Potential Source of Contamination
Lead (µg/L)	20	4.3	15	0.2	None	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (mg/L)	20	0.098	1.3	0.3	None	

Constituent (unit)	Secondary MCL	Range and Average Detected	Wells	Distribution (Treated)	Potential Sources of Contamination
SECONDARY STANDARDS - Aesthetic Standards					
Chloride (mg/L)	500	Range	86 - 130	---	Runoff/leaching from natural deposits
		Average	108	---	
Color (ACU)	15	Range	ND - 2	ND - 2	Naturally occurring organic materials
		Average	ND	ND	
Iron (µg/L)	300	Range	ND - 24	---	Leaching from natural deposits
		Average	12	---	
Odor Threshold (TON)	3	Range	ND - 3	ND - 2	Naturally occurring organic materials
		Average	ND	ND	
Sulfate (mg/L)	500	Range	90 - 97	---	Runoff/leaching from natural deposits
		Average	94	---	
Total Dissolved Solids (mg/L)	1000	Range	470 - 610	---	Runoff/leaching from natural deposits
		Average	540	---	
Turbidity (NTU)	5	Range	0.06 - 1.5	0.06 - 0.76	Soil runoff
		Average	0.33	0.13	
ADDITIONAL PARAMETERS (Unregulated)					
Alkalinity, Total as CaCO ₃ (mg/L)	NA	Range	102 - 109	---	Runoff/leaching from natural deposits
		Average	106	---	
Boron	NA	Range	100 - 110	---	Runoff/leaching from natural deposits
		Average	105	---	
Calcium (mg/L)	NA	Range	87 - 100	---	Runoff/leaching from natural deposits
		Average	94	---	
Hardness (Total) as CaCO ₃ (mg/L)	NA	Range	240 - 300	---	Runoff/leaching from natural deposits
		Average	270	---	
Magnesium (mg/L)	NA	Range	6.1 - 9.3	---	Runoff/leaching from natural deposits
		Average	7.7	---	
pH	NA	Range	7.86 - 7.94	7.83	Runoff/leaching from natural deposits
		Average	7.90	7.83	
Potassium (mg/L)	NA	Range	5.3	---	Runoff/leaching from natural deposits
		Average	5.3	---	
Sodium (mg/L)	NA	Range	47 - 48	---	Runoff/leaching from natural deposits
		Average	48	---	

Additional constituents monitored in 2022 and not detected above State reporting limits: copper, fluoride, manganese, MBAS, perchlorate, 1,2,3-Trichloropropane, silver, and zinc. Additional constituents monitored in 2021 and not detected above State reporting limits: aluminum, antimony, beryllium, cadmium, chromium, cyanide, lead, nickel, selenium, thallium. Additional constituents monitored in 2020 and not detected above State reporting limits: volatile and synthetic organic chemicals.



Terms and Abbreviations

CaCO₃ – Calcium carbonate

CCWA– Central Coast Water Authority

Distribution – CSA16 Distribution samples consist of “Delivered” water collected at various turnouts in the distribution system to be used for daily operation or for any required compliance samples (i.e. quarterly Disinfection byproducts and monthly microbiological samples).

Wells (Raw) – CSA16 Raw well water is Shandon’s groundwater wells prior to any treatment or blending with State Water

CSA-16 Wells (Treated) – CSA16 Treated well water is raw well water that has gone through a treatment process to provide disinfection against viral and bacteriological contamination

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.

µg/L – Micrograms 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.

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

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

State Water – The California State Water Project raw source water is treated by the Central Coast Water Authority (CCWA) Polonio Pass Water Treatment Plant. The CCWA treated water (State Water) is purchased by the County of San Luis Obispo to be blended with Shandon’s treated well water for delivery to CSA16.

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.

USEPA – United States Environmental Protection Agency

CONTACT 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

(805) 781-5111

PW.WQL@co.slo.ca.us

<http://slocountywater.org/WQL/wql.html>



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 website at www.slocounty.ca.gov. Information specific to the CSA 16 water system can be found at www.slocounty.ca.gov/pw/csa16.

The **Shandon Advisory Council** is scheduled to hold regular meetings on the 1st Wednesday of every month starting at 7pm at the Club House at Crawford W. Clarke Memorial Park, Shandon, CA. You can contact the advisory council by **email:** info@ShandonCA.org, 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/>.

Shandon News

All water quality results, above established minimum detection levels, are published in the annual Consumer Confidence Report (CCR) produced by the County. The Shandon CCR is available at:

<https://www.slocounty.ca.gov/Departments/Public-Works/Forms-Documents/Water-Resources/Water-Quality-Reports.aspx>

More information about your water quality can also be found at the website:

<https://sdwis.waterboards.ca.gov/PDWW/index.jsp>

Enter CA4010028 for the Water System Number or use SLO CSA NO. 16 – SHANDON for the Water System Name. Information provided at the site includes: Water System Details, Water System Facilities, Monitoring Schedules, Monitoring Results, Lead and Copper Sample Summary Results, Violations/Enforcement Actions, and Site Visits.

A Comparison of Shandon’s Water Usage (2021– 2022):

CSA16 – SHANDON Water Statistics (January - December)

Year	Annual Consumption (million gallons)	Average Daily Demand (gallons)	Gallons per day Per service connection ²	Percent Change from Previous Year
2021	25.8	70,600	195	0.52 % Increase
2022	25.3	69,200	192	2.0 % Decrease

² According to the Environmental Protection Agency (EPA), “the average American Family uses more than 300 gallons of water per day at home.”