

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

Lopez Project

System Number 4010022

2021

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



YOUR 2021 WATER QUALITY REPORT

The County of San Luis Obispo is pleased to present this 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. 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 potable. Tradúzcalo ó hable con alguien que lo entienda bien.***

YOUR WATER SUPPLY

Source water for Lopez Project comes from Lopez Lake, located approximately 10 miles east of Arroyo Grande. The lake is part of a 67-square mile watershed. The water is conveyed three miles by pipeline to the Lopez Terminal Reservoir adjacent to the Lopez Water Treatment Plant (WTP).

A portion of your water comes 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. Additional information on the State Water Project can be found at:

<https://water.ca.gov/Programs/State-Water-Project>

A watershed sanitary survey was conducted in 2020 to help identify potential contaminating activities in the watershed and assess their impact on the raw and treated water quality. A copy of the survey or assessment can be found at the County of San Luis Obispo Department of Public Works website at:

<http://www.slocounty.ca.gov/Departments/PublicWorks/Services/Watershed-SanitarySurveys.aspx>



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, which 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, which 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**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure 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 limits the amount of certain contaminants in the water provided by public water systems.

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).



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WATER QUALITY

The following tables are a snapshot of drinking water constituents that were detected in your water in 2021, 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, RAL, or [MRDL]	PHG (MCLG) or [MRDLG]	Lopez WTP-Treated Water ¹		Delivered Water ²		Distribution ³		Potential Source of Contamination
			Range detected	Average detected	Range detected	Average detected	Range detected	Average detected	
Turbidity ⁴	TT = 95% of samples each month ≤ 0.1 NTU	N/A	100%	100%	N/A	N/A	N/A	N/A	Turbidity is a measure of the cloudiness of the water. It is a good indicator of water quality.
	TT = 1 NTU	N/A	0.02-0.13	0.04	N/A	N/A	N/A	N/A	
Total Coliform Bacteria (Present or Absent)	Not to exceed 5.0% of monthly samples positive ⁵	(0)	----	ND	----	ND	----	ND	Naturally present in the environment.
Heterotrophic Bacteria (CFU/mL)	TT = <500	----	ND-103	2.7	ND-384	7.7	ND-1200 ⁶	17	Naturally present in the environment.
Aluminum (ppm)	1	0.6	ND-0.027	ND	ND-0.054	0.028	----	----	Erosion of natural deposits; residue from some surface water treatment processes.
Arsenic (ppb)	10	0.004	3.4-5.8	4.7	3.2-5.1	3.9	----	----	Erosion of natural deposits

¹ Lopez WTP "Treated" water – Water samples collected from the Lopez Water Treatment Facility just prior to blending with State Water Project supply.

² "Delivered" Water – Water samples collected that represent the blending of "Treated" water and with water delivered through the State Water Project.

³ "Distribution"– Delivered water collected at various turnouts in the distribution system to be used for daily operation and regulatory sampling.

⁴ Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

⁵ Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.

⁶ 1200 CFU/mL for distributed water is an unusually high result for CSA 12. Due to this high value, a sample was recollected to verify the accuracy of the result, and the recollected sample showed no detectable HPCs. Thus, the high result does not represent the usual water quality in the system for 2021.



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Constituents with a Secondary Drinking Water Standards (Aesthetics)

Constituent (Units)	MCL, TT, RAL, or [MRDL]	PHG (MCLG) or [MRDLG]	Lopez WTP Treated Water ¹		Delivered Water ²		Distribution ³		Potential Source of Contamination
			Range detected	Average detected	Range detected	Average detected (LRAA High)	Range detected	Average detected (LRAA High)	
Barium (ppm)	2	2	----	0.030	----	0.031	----	----	Erosion of natural deposits
Copper (ppm)	RAL = 1.3	0.3	----	0.024	----	0.12	----	----	Internal corrosion of household plumbing systems; erosion of natural deposits.
Fluoride (ppm)	2	1	----	0.27	----	0.21	----	----	Erosion of natural deposits.
Gross Alpha Particle Activity (pCi/L) ⁷	15	N/A	1.42-1.59 (2013)	1.51 (2013)	0.028-3.15 (2013)	1.25 (2013)	----	----	Erosion of natural deposits
Total Trihalomethanes (ppb)	80 (LRAA) ⁸	----	22-74	42.2	25-61	40.0	11.5-66.2	45.3	Byproduct of drinking water disinfection.
Haloacetic Acids (ppb)	60 (LRAA) ⁹	----	16-53	29.6	15-32	24.5	15.8-35	25.4	Byproduct of drinking water disinfection.
Total Chlorine (ppm)	MRDL = 4.0 as Cl ₂ ¹⁰	MRDL = 4.0 as Cl ₂	0.9-3.34	2.53	1.89-3.10	2.46	0.25-2.68	2.30	Drinking water disinfectant added for treatment.
Free Chlorine (ppm) ¹¹	MRDL = 4.0 as Cl ₂	MRDL = 4.0 as Cl ₂	3.62-4.32 ¹²	3.97	2.74-3.3	3.06	0.98-3.15	2.23	Drinking water disinfectant added for treatment.
Chlorite (ppm)	1.0 (delivered and distribution avg.)	0.05	0.46-0.83	0.627	0.061-0.7	0.50	0.24-0.59	0.45	Byproduct of drinking water disinfection.
Chlorate (ppb)	RAL = 800	----	----	----	0.16-0.41	0.25	0.16-0.44	0.25	Byproduct of drinking water disinfection.
Chlorine Dioxide (ppb)	MRDL=800 as ClO ₂	[800]	ND-323	101	ND-157	17	ND-270	87	Drinking water disinfectant added for treatment.

⁷ Next schedule sampling is in 2022.

⁸ Compliance is based on the locational running annual average of samples; elevated total trihalomethanes for one quarter due to annual disinfection change for pipeline maintenance.

⁹ Compliance is based on the locational running annual average of samples; elevated total haloacetic acids for one quarter due to annual disinfection change for pipeline maintenance.

¹⁰ The MRDL for free and total chlorine is based on a running annual average of distribution system samples.

¹¹ Free chlorine was utilized from November 3rd- December 1st as a routine maintenance procedure. This annual switchover of disinfectants helps to ensure water mains remain free of potentially harmful bacteria.

¹² "Lopez WTP treated water" was over 4.0 ppm on a single sample. MRDL regulations were met for Delivered and Distribution samples.



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Constituent (Units)	MCL, TT, RAL, or [MRDL]	Lopez WTP Treated Water ¹		Delivered Water ²		Violation?	Potential Source of Contamination
		Range detected	Average detected	Range detected	Average detected		
Aluminum (µg/L)	200	ND-27	ND	ND-54	28	No	Erosion of natural deposits; residue from some surface water treatment processes.
Chloride (mg/L)	500	----	33	----	47	No	Runoff/leaching from natural deposits.
Color (CU)	15	----	1	----	1	No	Naturally occurring organic materials.
Copper (ppm)	1	----	0.022	----	0.10	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Odor - Threshold (TON)	3	1.0-4.0	1.9	ND-2.0	1.0	Yes ¹³	Naturally occurring organic materials.
Specific Conductance (µS/cm)	1600	----	870	----	850	No	Runoff/leaching from natural deposits.
Sulfate (mg/L)	500	----	140	----	130	No	Runoff/leaching from natural deposits; seawater influence.
Turbidity (NTU)	5	----	0.14	----	0.11	No	Soil runoff.
Total Dissolved Solids (mg/L)	1000	----	540	----	610	No	Runoff/leaching from natural deposits; seawater influence.

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 San Luis Obispo County.

Some additional constituents monitored at our source water but did not detect above State reporting limits: antimony, beryllium, chromium, lead, mercury, MBAS, nickel, nitrite, nitrate, perchlorate, potassium, selenium, silver, VOC and zinc.

¹³ Increases in odor have been associated with algae blooms. During times of increased algae blooms and odors, the algae is controlled with algacides and the odor is reduced to acceptable levels by treating water with powder activated carbon.



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Lead and Copper Monitoring (Distribution) 2017

Constituent (Unit)	Number of Samples	90th percentile	Action Level	PHG	# of sites exceeding AL	Potential Source of Contamination
Lead (ppb)	6	2.6	15	0.2	None	Internal corrosion of water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	6	0.023	1.3	0.3	None	

Per California Assembly Bill 746 (AB 746) and at the request of one local school within our system, below is a summary of the lead and copper results for the sample locations at Bellevue-Santa Fe Charter School.

Lead and Copper Monitoring (Bellevue-Santa Fe Charter School)

Constituent (Unit)	Number of Samples	90th percentile	Action Level	PHG	# of sites exceeding AL	Potential Source of Contamination
Lead (ppb)	10	1.3	15	0.2	None	Internal corrosion of water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	10	0.360	1.3	0.3	None	

Constituents with No MCL

Constituent (Reporting units)	Lopez WTP ¹		Delivered ²		Potential Source of Contamination
	Range	Average	Range	Average	
Alkalinity as CaCO ₃ (ppm)	258-284	270	228-229	228	Runoff/leaching from natural deposits; seawater influence.
Calcium (ppm)	86-93	90	76-93	82	Runoff/leaching from natural deposits; seawater influence.
Hardness as CaCO ₃ (ppm)	370-410	390	330-410	360	Generally found in ground and surface water.
Magnesium (ppm)	37-43	40	33-43	37	Runoff/leaching from natural deposits; seawater influence.
pH	8.12-8.44	8.27	8.00-8.18	8.09	Runoff/leaching from natural deposits; seawater influence.
Sodium (ppm)	-----	28	-----	34	Runoff/leaching from natural deposits; seawater influence.



KEY TERMS AND ABBREVIATIONS

CFU/ml - Colony Forming Units per milliliter.

CU - Color Units.

Delivered Water - Water samples collected that represent the blending of "Treated" water and with water delivered through the State Water Project.

Distribution - "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 TCR samples).

DWR - Department of Water Resources

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 ($\mu\text{g/L}$).

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.

TON - Threshold Odor Number.

Treated Water - Water samples collected from the Lopez Water Treatment Facility just prior to blending with State Water Project water.

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

$\mu\text{S/cm}$ - microsiemens per centimeter (unit of specific conductance of water).

$\mu\text{g/L}$ - Micrograms per Liter.

USEPA - United States Environmental Protection Agency.



DRINKING WATER AND HEALTH RISKS

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).

While your drinking water meets the federal and state standard for arsenic, it does contain low levels of 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 effect 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.

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 (1-800-425-4791) or at <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>.

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. Agendas for all Board of Supervisors meetings are on the Board of Supervisors internet web site at www.slocounty.ca.gov. The public can also participate in the Zone 3 Advisory Group meetings. This group is composed of representatives from the Five-Cities area. The group meets at 6:30 pm on the 3rd Thursday of January, March, May, July, September, and November. Information on meeting times and places are published in the newspaper or can be obtained from the County of San Luis Obispo Department of Public Works Zone 3 web page at www.slocounty.ca.gov/PWZone3.

FOR MORE 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

SLO County Water Quality Laboratory
805-781-5111
PW.LabReports@co.slo.ca.us
<http://www.slocounty.ca.gov/Departments/Public-Works/Our-Divisions/Water-Quality-Lab.aspx>

