

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](http://www.slocounty.ca.gov/PW.htm)

# Water Quality Report

Lopez Project  
System Number 4010022

## 2020

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

### YOUR 2020 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 para beber. Favor de comunicarse con el Condado de San Luis Obispo, County Government Center, Room 206, San Luis Obispo, CA 93308, (805 )788-2954 para asistirlo en español.

#### 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 and has a storage capacity of 49,200 acre-feet, or about 16 billion gallons of water. The water is conveyed three miles by pipeline to the Lopez Terminal Reservoir adjacent to the Lopez Water Treatment Plant (WTP). The water is held in the Terminal for over a month before entering the WTP. During that time, particles settle out of the water and exposure to sunlight helps reduce the risk of bacterial and viral contamination from human contact in Lopez Lake.



*Lopez Terminal*

A watershed sanitary survey is conducted every five years. The first survey was done by Boyle Engineering in 1996. The next survey will be released in March 2021. A Drinking Water Source Assessment was also performed in 2003. The survey and assessment identify potential contaminating activities in the watershed and assess their impact on the raw and treated water quality. Lopez Lake and Lopez Terminal Reservoir were found to be the most vulnerable to wastewater generation at the Lopez Recreation Area, livestock near the reservoirs, and a roadway that bisects the Terminal Reservoir. To date, these activities have not adversely impacted the WTP 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 or by contacting the Water Quality Laboratory at (805) 781-5111.

#### Drinking Water Source Assessment

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

#### Watershed Sanitary Survey

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



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

### 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 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.

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).



## Lopez Project Consumer Confidence Report 2020

### WATER QUALITY

The following tables are a snapshot of drinking water constituents that were detected in your water in 2020, 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 <sup>1</sup>		Delivered Water <sup>2</sup> Distribution <sup>3</sup>		Violation?	Potential Source of Contamination
			Range detected	Average detected	Range detected	Average detected		
Plant Filter Performance								
Turbidity <sup>4</sup>	TT = 95% of samples each month ≤ 0.1 NTU	N/A	100%	100%	N/A	N/A	No	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	No	
Microbiological								
Total Coliform Bacteria (Present or Absent)	Not to exceed 5.0% of monthly samples positive <sup>5</sup>	(0)	-----	ND	-----	ND	No	Naturally present in the environment.
Heterotrophic Bacteria (CFU/mL)	TT = <500	-----	ND-2	ND	ND –3 ND - 860 <sup>6</sup>	ND 13	No	Naturally present in the environment.
Inorganic								
Aluminum (ppm)	1	0.6	ND	ND	ND – 0.031	ND	No	Erosion of natural deposits; residue from some surface water treatment processes.
Arsenic (ppb)	10	0.004	3.9-5.9	4.6	3.3-5.7	4.0	No	Erosion of natural deposits

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

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

<sup>3</sup> "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). Results are listed on second line, where data is available.

<sup>4</sup> 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.

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

<sup>6</sup> Samples should be less than 500 and/or greater than 0.20mg/L Cl<sub>2</sub> in 95% of the distribution samples. This sample had a chlorine residual above 0.20 mg/L.



## Lopez Project Consumer Confidence Report 2020

Constituent (Units)	MCL, TT, RAL, or [MRDL]	PHG (MCLG) or [MRDLG]	Lopez WTP Treated Water <sup>1</sup>		Delivered Water <sup>2</sup> Distribution <sup>3</sup>		Violation?	Potential Source of Contamination
			Range detected	Average detected	Range detected	Average detected (LRAA High)		
Barium (ppm)	2	2	----	0.028	----	0.030	No	Erosion of natural deposits
Copper (ppm)	RAL = 1.3	0.3	----	0.022	----	0.10	No	Internal corrosion of household plumbing systems; erosion of natural deposits.
Fluoride (ppm)	2	1	----	0.31	----	0.28	No	Erosion of natural deposits.
<i>Radioactivity</i>								
Gross Alpha Particle Activity (pCi/L) <sup>7</sup>	15	N/A	1.42-1.59 (2013)	1.51 (2013)	0.028-3.15 (2013)	1.25 (2013)	No	Erosion of natural deposits
<i>Disinfectant Residuals and Disinfection Byproducts</i>								
Total Trihalomethanes (ppb)	80 (LRAA) <sup>8</sup>	-----	24-68	36.2	27-94 27- <b>130</b>	45.5 52.1 (52.1)	No	Byproduct of drinking water disinfection.
Haloacetic Acids (ppb)	60 (LRAA) <sup>9</sup>	-----	17.7-73.7	32.1	16.8-54.3 16.5- <b>126</b>	27.4 43.8 (43.8)	No	Byproduct of drinking water disinfection.
Total Chlorine (ppm)	MRDL = 4.0 as Cl <sub>2</sub> <sup>10</sup>	MRDL = 4.0 as Cl <sub>2</sub>	2.18-3.30	2.70	1.86-2.92 0.19-2.65	2.41 2.12	No	Drinking water disinfectant added for treatment.
Free Chlorine (ppm) <sup>11</sup>	MRDL = 4.0 as Cl <sub>2</sub>	MRDL = 4.0 as Cl <sub>2</sub>	3.74-3.86	3.80	2.42-3.21 0.18-2.96	2.70 1.80	No	Drinking water disinfectant added for treatment.
Chlorite (ppm)	1.0 (delivered and distribution avg.)	0.05	0.52-0.84	0.633	0.38-0.61 0.37-0.63	0.54 0.54	No	Byproduct of drinking water disinfection.
Chlorate (ppb)	RAL = 800	-----	-----	-----	270-400 260-440	320 329	No	Byproduct of drinking water disinfection.
Chlorine Dioxide (ppb)	MRDL=800 as ClO <sub>2</sub>	[800]	ND-190	70	ND-110 ND-130	ND ND	No	Drinking water disinfectant added for treatment.

<sup>7</sup> Next schedule sampling is in 2022.

<sup>8</sup> 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.

<sup>9</sup> 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.

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

<sup>11</sup> Free chlorine was utilized from October 29<sup>th</sup> - November 15<sup>th</sup> as a routine maintenance procedure. This annual switchover of disinfectants helps to ensure water mains remain free of potentially harmful bacteria.



## Lopez Project Consumer Confidence Report 2020

### Constituents with a Secondary Drinking Water Standards (Aesthetics)

Constituent (Units)	MCL, TT, RAL, or [MRDL]	Lopez WTP Treated Water <sup>1</sup>		Delivered Water <sup>2</sup>		Violation?	Potential Source of Contamination
		Range detected	Average detected	Range detected	Average detected		
Aluminum (µg/L)	200	-----	ND	ND-31	ND	No	Erosion of natural deposits; residue from some surface water treatment processes.
Chloride (mg/L)	500	-----	16	-----	37	No	Runoff/leaching from natural deposits.
Color (CU)	15	-----	7		2	No	Naturally occurring organic materials.
Odor - Threshold (TON)	3	1.0-4.0	3.0	ND-4.0	1.5	Yes <sup>12</sup>	Naturally occurring organic materials.
Specific Conductance (µS/cm)	1600	-----	780	-----	790	No	Runoff/leaching from natural deposits.
Sulfate (mg/L)	500	-----	130	-----	120	No	Runoff/leaching from natural deposits; seawater influence.
Distribution Turbidity (NTU)	5	0.06-0.13	0.08	0.05- 0.60	0.10	No	Soil runoff.
Total Dissolved Solids (mg/L)	1000	500-570	530	490-520	500	No	Runoff/leaching from natural deposits; seawater influence.

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

<sup>12</sup> Increases in odor have been associated with algae blooms. During times of increased algae blooms and odors, the algae is controlled with algaecides and the odor is reduced to acceptable levels by treating water with powder activated carbon.



## Lopez Project Consumer Confidence Report 2020

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.

### Lead and Copper Monitoring (Distribution System) 2017

Constituent (Unit)	Number of Samples	90th percentile	Regulatory Action Level (RAL)	PHG	Violation	Potential Source of Contamination
Lead (ppb)	6	2.6	15	0.2	None	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) 10/2018

Constituent (Unit)	Number of Samples	Range (Average)	Regulatory Action Level (RAL)	PHG	Violation	Potential Source of Contamination
Lead (ppb)	10	0-2.6 (0.7)	15	0.2	None	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	10	0.360 (0.190)	1.3	0.3	None	

### Constituents with No MCL

Constituent (Reporting units)	Lopez WTP <sup>1</sup>		Delivered <sup>2</sup>		Potential Source of Contamination
	Range	Average	Range	Average	
Alkalinity as CaCO <sub>3</sub> (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 <sub>3</sub> (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 (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.

**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.

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

**µg/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-aboutleaddrinking-water>.

### 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.

### **OPERATIONS STAFF**

The Lopez Project is assigned eight certified water system operators who strive to provide the highest quality drinking water without interruption. Our operators are knowledgeable professionals who implement new treatment technologies, system upgrades and undergo continual training to improve on the high-quality tap water delivered to your home.

Operators conduct weekly inspections of the reservoirs, clear well, tanks, and distribution system, collect samples, and analyze parameters in the field to ensure a safe and reliable water supply. Our exceptional staff responds to all water system needs every day and at any hour. In addition, the State Water Resources Control Board-Division of Drinking Water (SWRCB-DDW) routinely inspects the facilities, operating procedures, and water quality monitoring records to verify compliance with state and federal regulatory requirements.

### **WATER QUALITY LABORATORY**

The Department of Public Works Water Quality Laboratory provides laboratory services for most County operated water and wastewater systems. The lab is certified by the State of California's Environmental Laboratory Accreditation Program (ELAP).

### **COMMUNITY PARTICIPATION**

The County of San Luis Obispo Board of Supervisors meets 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 website at <http://www.slocounty.ca.gov/Departments/Clerk-Recorder/All-Services/Board-of-Supervisors-Meetings.aspx>

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 p.m. 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/PW/Zone3](http://www.slocounty.ca.gov/PW/Zone3).



**FOR MORE INFORMATION:**

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**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](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/publicwatersystems.shtml)

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<http://www.slocounty.ca.gov/Departments/Public-Works/Our-Divisions/Water-Quality-Lab.aspx>