

2015 Consumer Confidence Report

Water System Name: Port San Luis Harbor District Report Date: May 16, 2016

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2015 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source(s) in use: Surface Water

Name & general location of source(s): Lopez Lake Water Supply Project

Drinking Water Source Assessment information: A source assessment was performed in 2001; 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 assessment can be found at the San Luis Obispo County Public Works Department website or by contacting the Water Quality Laboratory at (805) 781-5111.

Time and place of regularly scheduled board meetings for public participation: Regular meetings are held on the fourth Tuesday of every month at 6pm at the Coastal Gateway Building (3900 Avila Beach Drive).

For more information, contact: Port San Luis Harbor District Phone: (805) 595-5400

TERMS USED IN THIS REPORT

Maximum Contaminant Level (MCL): 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.

Maximum Contaminant Level Goal (MCLG): 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 (USEPA).

Public Health Goal (PHG): 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.

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Variations and Exemptions: State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter ($\mu\text{g/L}$)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)

pCi/L: picocuries per liter (a measure of radiation)

$\mu\text{S/cm}$: microSiemens per centimeter (a measure of specific conductance)

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 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.

Tables 1, 2, 3, 4, 5, 7, and 8 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.)	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	(In the year)	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

Lead and Copper (complete if lead or copper detected in the last sample set)	Sample Date	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	2014	N/A	N/A	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	2014	5	0.23	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

*Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided later in this report.

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Lopez Lake WSP Sodium (ppm)	2015	44	N/A	none	none	Salt present in the water and is generally naturally occurring
Lopez Lake WSP Hardness (ppm)	2015	320	260 – 410	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Lopez Lake WSP Turbidity (NTU)	2015	0.032	0.010 – 0.235	TT	N/A	Soil runoff
Lopez Lake WSP Aluminum* (ppm)	2015	0.020	ND – 0.024	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Lopez Lake WSP Arsenic (ppb)	2015	5.3	4.2 – 6.5	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Lopez Lake WSP Barium (ppm)	2015	0.029	N/A	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Lopez Lake WSP – Distribution Copper (ppm)	2015	0.091	N/A	(AL=1.3)	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lopez Lake WSP Fluoride (ppm)	2015	0.499	N/A	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lopez Lake WSP Gross Alpha Particle Activity (pCi/L)	2013	1.51	1.42 – 1.59	15	(0)	Erosion of natural deposits
Port SLO Harbor Total Trihalomethanes (ppb)	2015	43	N/A	80	(N/A)	Byproduct of drinking water disinfection
Port SLO Harbor Haloacetic Acids (ppb)	2015	24	N/A	60	(N/A)	Byproduct of drinking water disinfection
Lopez Lake WSP Chlorine (ppm)	2015	2.48	1.31 – 5.08	[4.0 as Cl ₂]	[4 as Cl ₂]	Drinking water disinfectant added for treatment
Lopez Lake WSP Chlorite (ppm)	2015	0.68	0.37 – 0.92	1.0	0.05	Byproduct of drinking water disinfection
Lopez Lake WSP Chlorate (ppb)	2015	650	600 – 693	RAL = 800	N/A	Byproduct of drinking water disinfection
Lopez Lake WSP Chlorine Dioxide (ppb)	2015	ND	ND - 340	[800 as ClO ₂]	[800 as ClO ₂]	Drinking water disinfectant added for treatment

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TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Lopez Lake WSP Aluminum (ppb)	2015	20	ND – 24	200	N/A	Erosion of natural deposits; residual from some surface water treatment processes
Lopez Lake WSP Chloride (ppm)	2015	27.2	N/A	500	N/A	Runoff/leaching from natural deposits; seawater influence
Lopez Lake WSP Color (units)	2015	3	N/A	15	N/A	Naturally-occurring organic materials
Lopez Lake WSP Odor Threshold* (units)	2015	2	ND – 4	3	N/A	Naturally-occurring organic materials
Lopez Lake WSP Specific Conductance (μ S/cm)	2015	840	N/A	1600	N/A	Substances that form ions when in water; seawater influence
Lopez Lake WSP Sulfate (ppm)	2015	130	N/A	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Lopez Lake WSP Total Dissolved Solids – TDS (ppm)	2015	570	N/A	1000	N/A	Runoff/leaching from natural deposits
Lopez Lake WSP Turbidity (NTU)	2015	0.1	0.04 – 0.65	5	N/A	Soil runoff

*Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

Additional General Information on Drinking Water

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 the 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. 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).

Lead-Specific Language for Community Water Systems: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Port San Luis Harbor District 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. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] 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 or at <http://www.epa.gov/lead>.

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 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.

Odor Threshold results were at levels that exceeded the secondary MCL (Maximum Contaminant Level) standards. The secondary MCLs were set to protect you against unpleasant aesthetic effects (e.g., color, taste, and odor) and the staining of plumbing fixtures (e.g., tubs and sinks) and clothing while washing. The elevated levels are most likely due to the naturally-occurring organic materials.

Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
Turbidity Monitoring	The Lopez Water Treatment Plant did not meet a monitoring treatment technique for turbidity. The plant filters water through membrane fibers; each day, a membrane integrity test (MIT) is performed on each rack containing membrane filters. In February, there were two times that one of the racks exceeded the turbidity set point; staff did not shut down the rack and perform the required MIT.	February 23 – 28, 2015	The daily compliance MIT was performed and indicated no failure with the membrane filters on that day or the following day. Staff has been notified of the monitoring failure and the requirements specific to membrane filtration. Additional programming changes will be implemented to automatically shut down the rack and notify operators to perform an MIT.	Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth.
Chlorate Notification	The Lopez Project water system had chlorate levels in the distribution system above the notification level. Results showed levels as high as 1,440 ppb in the water distribution system; this is above the notification level of 800 ppb. The elevated levels were likely caused by the annual switchover from using chloramines to using free chlorine for secondary disinfection. The switchover helps to ensure that water mains remain free of potentially harmful bacteria, but the free chlorine levels helped convert chlorite to chlorate in the distribution line.	November 9, 2015	Chlorate levels returned to normal level when the system returned to the use of chloramines for disinfection. Monitoring for chemicals with notification levels is not required for Lopez Project, but unregulated contaminant monitoring helps USEPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated. The Zone 3 governing board was notified of the chlorate notification level being exceeded.	Chlorate is considered noncancerous, but may contribute to pituitary or thyroid gland issues. This chemical may be given a maximum contaminant level at some time in the future once more information becomes available on the possible risk to human health.