Lakeside Elementary School – Water System

Consumer Confidence Report – 2022

Santa Clara County Water System I.D. No. 4300779

Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguen que lo entienda bien.

June 28, 2023

About This Report

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 to December 31, 2022 and may include earlier monitoring data.

The Lakeside Elementary School has its' own water system classified as a "non-community, non-transient water system". As such, we are required to provide this *Water Quality / Consumer Confidence Report* to you, the water user. In 2022, water from the system was tested and compared to the EPA and State drinking water health standards, which is summarized in this brochure. Included are details about where the water comes from, what it contains, and how it compares to State standards.

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 (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, person 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 (800-426-4791).

School water typically comes from an on-site water production well sunk approximately 152-feet into an underground source of water in fractured shale and sandstone. Water from this well is treated with chlorine for disinfection and then pumped to a 5,000-gallon polyethylene (plastic) storage tank and a 10,000-gallon steel tank that supply potable water for domestic (drinking and hand washing) use at the school. A booster pump and pressure tanks provide pressure throughout the water system. The storage tanks are located on the north side of campus. The well is located in the center of campus, on the athletic field, adjacent to the playground, and connected to the storage tanks via underground piping. In April 2022 due to issues with the underground well, the School stopped using the well and started having potable water delivered to the School via hauling trucks. Water was delivered to the School from April 2022 through the end of 2022. Please see the notes below regarding drinking water.

Sources of drinking water (both tap water and bottled water) include river, 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 before it is treated include:

- Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic system, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban storm water 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 storm water runoff, and residential uses.
- Radioactive contaminants, that can be naturally occurring or be the result of oil and gas production and mining activities.
- 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 storm water runoff, agriculture application, and septic systems.

In order to ensure that tap water is safe to drink, the 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. SWRCB regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

WATER QUALITY DATA

The attached Tables 1 and 2 list all the drinking water compounds (analytes) that the source well / delivered potable water and the water distribution system were tested for, the date of the tests, the results of the tests, and the Maximum Contaminant Level (MCL) for that analyte established by the US EPA or the state of California in parts per million (ppm). For comparison, 1-ppm is the equivalent of 1 second in 11.5 days. The presence of any compound in the water does not necessarily indicate that the water poses a health risk. The State requires monitoring for certain compounds less than once per year because the concentrations of these compounds are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Source water supplied to and distributed in the system met all EPA and State drinking water standards, except for the following instances:

- On 1/26/17, iron and manganese concentrations exceeded the secondary Maximum Contaminant Level (MCL) in the source well. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water and do not affect health at that level. Water with elevated iron and manganese concentrations can result in reddish-brown and dark brown stains on fixtures and washed clothing.

- On 1/26/17, the well source water was above the secondary MCL for turbidity. Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

- Bacteria (coliform & E. Coli) were generally not detected in the water source well nor in the distribution system to end users in 2022, except for one slight coliform detection on February 24, 2022 and another detection on June 23, 2022. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments. The slight coliform detection was a result of the water system temporarily losing pressure. This issue was quickly resolved. The follow up water samples on February 28, 2022 and June 28, 2022 were non-detect for coliform. See the attached Table 2 for details.

The laboratory analytical results are summarized in the attached Tables 1 and 2.

About Disinfection by Chlorine Injection: Due to its' age, the depth of the source well sanitary seal (14-feet) does not meet current standards. As a protective measure, a chlorine injection system adds chlorine to the water at the well head as a disinfectant before it goes to the storage tanks to ensure the water system is free of bacteria. The chlorine injection system was operated to provide a chlorine residual of slightly less than 1 part per million in the water storage tanks and distribution system, a level that is safe for drinking. The Maximum Residual Disinfection Level (MRDL) for chlorine is 4 ppm. We installed a new, deeper, properly constructed well in the summer of 2015 and are in the process of connecting it to the drinking water system to replace the older well.

Please direct any questions about the potable water system to:

Sean Joyce – Lakeside School Superintendent (408.354.2372) or

Shawn Mixan (Certified Water Operator - Weber, Hayes and Associates) at 831.722.3580

Term	Definition
Level 1 Assessment	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
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 (U.S. EPA).
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.
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.
Regulatory Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
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.
Variances and Exemptions	Permissions from the State Water Resources Control Board (State Board) 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 (µg/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)

Table 1: Summary of Well-1 (-001) Analytical Results

Lakeside Elementary School, Los Gatos, CA - Water System I.D. No. 4300779 (-001)

Analyte	Date Sampled	RESULT (ppm)	MCL (ppm)
SDWIS - INORGANICS			
Aluminum (Al)	3/17/22	ND	0.2 [2] | 1
Antimony (Sb)	3/17/22	ND	0.006
Arsenic (As)	3/17/22	ND	0.01
Barium (Ba)	3/17/22	0.14	1
Beryllium (Be)	3/17/22	ND	0.004
Boron (B)	3/17/22	ND	*CA-AL: 1
Cadmium (Cd)	3/17/22	ND	0.005
Chromium (Cr)	3/17/22	ND	0.05
Cyanide (CN)	3/17/22	ND	0.15
Fluoride (F)	3/17/22	0.11	
Lead (Pb)	3/17/22	ND	*AL: 0.015
Mercury (Hg)	3/17/22	ND	0.002
Nickel (Ni)	3/17/22	ND	0.1
Selenium (Se)	3/17/22	ND	0.05
Thallium (Tl)	3/17/22	ND	0.002
SDWIS - SECONDARY / GP			
Bicarbonate Alkalinity (as HCO3)	6/7/19	170	--
Carbonate Alkalinity (as CO3)	6/7/19	ND	--
Total Alkalinity (as CaCO3)	6/7/19	140	--
Calcium (Ca)	6/7/19	46	--
Chloride (Cl)	1/26/17	14	500 [2]
Color (Co/Pt) (Units)	1/26/17	ND	15
Copper (Cu)	3/17/22	ND	*AL: 1.3 | 1.0 [2]
Foaming Agents MBAS (Surfactants)	3/6/19	ND	0.5 [2]
Hardness, Total (as CaCO3)	--	--	--
Hyroxide as Calcium Carbonite	--	--	--
Iron (Fe), total	1/26/17	3.4 **	0.3 [2]
Magnesium (Mg)	1/26/17	9.3	--
Manganese (Mn)	1/26/17	0.21 **	0.05 [2]
Odor (Threshold Number)	1/26/17	ND	3 [2]
pH value	--	--	6.5 - 8.5 [2a]
Potassium (K)	1/26/17	1.2	--
Silver (Ag)	3/17/22	ND	0.1 [2]
Sodium (Na)	1/26/17	16	--

Table 1: Summary of Well-1 (-001) Analytical Results

Lakeside Elementary School, Los Gatos, CA - Water System I.D. No. 4300779 (-001)

Analyte	Date Sampled	RESULT (ppm)	MCL (ppm)
Specific Conductivity	6/7/19	390 µS/cm	1,600 µS/cm [2]
Sulfate (SO4)	1/26/17	44	500 [2]
Total Dissolved Solids	--	--	1,000 [2]
Turbidity (NTU)	1/26/17	48 **	5 [2]
Zinc (Zn)	3/17/22	ND	5 [2]
	3/6/19	ND	
SDWIS - NITRATES			
Nitrate (as N)	3/17/22	ND	10
	3/30/21	ND	
	3/10/20	ND	
Nitrite (as N)	3/17/22	ND	1
	3/6/19	ND	
Nitrate+Nitrite (as N)	3/17/22	ND	10
	3/6/19	1.5	
OTHER			
Hexavalent Chromium (Cr+6)	11/6/14	ND	0.01 [a]
Perchlorate	8/12/21	ND	0.006
Synthetic Organic Compounds	6/6/17	ND	varies
Volatile Organic Compounds	12/7/16	ND	varies
1,2,3 TCP	11/19/21	ND	0.000005
Gross Alpha	5/13/20	2.99	15 pCi/L

All Data & MCLs QC'd on 6/27/23 by: S. Mixan (WHA)

NOTES:

Not all analytes are sampled every year. Most recent data is shown.

ppm = parts per million; which is equivalent to milligrams per liter (mg/L)

MCL = Maximum Contaminant Level. Primarily based on US Environmental Protection Agency (EPA) & California drinking water regulations

ND = Not Detected at or above the laboratory's Reporting Limit

2 = Secondary MCLs are set to protect the odor, taste, and appearance of drinking water and DO NOT affect health at that level

2a = EPA secondary drinking water standard

a = MCL is no longer in effect

*California (CA-NL) and/or EPA Action Levels (AL) are shown for analytes which do not have an MCL

Table 1: Summary of Well-1 (-001) Analytical Results

Lakeside Elementary School, Los Gatos, CA - Water System I.D. No. 4300779 (-001)

Analyte	Date Sampled	RESULT (ppm)	MCL (ppm)

** Indicates a secondary MCL exceedance. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water and DO NOT affect health at that level.

1,2,3-TCP = 1,2,3-Trichloropropane

pCi/L = picocuries per liter

NTU = Nephelometric Turbidity Units

Boron (B) = this analyte is not required per the SDWIS website

Table 2: Summary of Distribution System Analytical Results

Lakeside Elementary School, Los Gatos, CA - Water System I.D. No. 4300779

Analyte	Date Sampled	RESULT (ppm)	MCL (ppm)
Bacteria			
Coliform	Jan - Dec 2022	(generally) Absent	---
Coliform	Feb 24, 2022 & June 23, 2022	minor detections; issue resolved in less than 5-days (both cases)	---
E Coli	Jan - Dec 2022	Absent	---
Disinfection By-Products			
Total Trihalomethanes	8/12/21	0.015	0.80
Total HAA	8/12/21	0.0066	0.60
Lead & Copper			
Lead	6/7/19	90% of 16 samples below the AL	AL: 0.015
Copper	6/7/19	90% of 16 samples below the AL	AL: 1.3 | 1.0 [2]

All Data & MCLs QC'd on 6/27/23 by: S. Mixan (WHA)

NOTES:

ppm = parts per million; which is equivalent to milligrams per liter (mg/L)

MCL = Maximum Contaminant Level. Primarily based on US Environmental Protection Agency (EPA) & California drinking water regulations

ND = Not Detected at or above the laboratory's Reporting Limit

[2] = Secondary MCLs are set to protect the odor, taste, and appearance of drinking water and DO NOT affect health at that level

AL = California (CA-NL) and/or EPA Action Levels (AL) are shown for analytes which do not have an MCL