2023 Consumer Confidence Report

Water System Information

Water System Name: **Pacific Scientific-EMC**

Report Date: **7/1/2024**

Type of Water Source(s) in Use: **Well Water**

Name and General Location of Source(s): **Well 01 and 02 – Located West of Lake Teledyne**

Drinking Water Source Assessment Information: **A Level 2 Assessment was conducted by the Division of Drinking Water on January 30, 2024. Please contact Charlie Martin at (831) 630 5398 to coordinate reviewing this assessment.**

Time and Place of Regularly Scheduled Board Meetings for Public Participation: **NA**

For More Information, Contact: **Charlie Martin Phone (831) 630 5398**

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, 2023 and may include earlier monitoring data.

Importance of This Report Statement in Five Non-English Languages (Spanish, Mandarin, Tagalog, Vietnamese, and Hmong)

Language in Spanish: Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse **Pacific Scientific-EMC,** 3601 Union Road Hollister, CA 831 630 5398 para asistirlo en español.

Language in Mandarin: 这份报告含有关于您的饮用水的重要讯息。请用以下地址和电话联系 **Pacific Scientific-EMC,** 3601 Union Road Hollister, CA 831 630 5398以获得中文的帮助: **Pacific Scientific-EMC,** 3601 Union Road Hollister, CA 831 630 5398.

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa **Pacific Scientific-EMC,** 3601 Union Road Hollister, CA 831 630 5398 o tumawag sa **Pacific Scientific-EMC,** 3601 Union Road Hollister, CA 831 630 5398 matulungan sa wikang Tagalog.

Language in Vietnamese: Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ **Pacific Scientific-EMC,** 3601 Union Road Hollister, CA 831 630 5398 tại **Pacific Scientific-EMC,** 3601 Union Road Hollister, CA 831 630 5398 để được hỗ trợ giúp bằng tiếng Việt.

Language in Hmong: Tsab ntawv no muaj cov ntsiab lus tseem ceeb txog koj cov dej haus. Thov hu rau **Pacific Scientific-EMC,** 3601 Union Road Hollister, CA 831 630 5398 ntawm **Pacific Scientific-EMC,** 3601 Union Road Hollister, CA 831 630 5398 rau kev pab hauv lus Askiv.

Terms Used in This Report

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.

Term	Definition
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)

Sources of Drinking Water and Contaminants that May Be Present in Source 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.

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 byproducts 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.

Regulation of Drinking Water and Bottled Water Quality

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

About Your Drinking Water Quality

Drinking Water Contaminants Detected

Tables 1, 2, 3, 4, 5 and 6list 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. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

Table 1. Sampling Results Showing the Detection of Coliform Bacteria

(a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

Compliance with Total Coliform MCL between January 1, 2023 and December 31, 2023 (inclusive)

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	10*	3	1	0	Naturally present in the environment
Fecal Coliform and *E. coli*	2	1	0	None	Human and animal fecal waste

(a) For systems collecting fewer than 40 samples per month: two or more positively monthly samples is a violation of the total coliform MCL

For violation of the total coliform MCL, include potential adverse health effects, and actions taken by water system to address the violation: **Source undetermined. We chlorinated the process system to remove all bacteria prior to placing the system back into service.**

Table 2. Sampling Results Showing the Detection of Lead and Copper

Lead and Copper	Sample Date	No. of Samples Collected	90th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppm)	9/6/2022	5	5.1	0	15	0.015	N/A	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	9/6/2022	5	.280	0	1.3	0.3	N/A	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

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
Sodium (ppm)	4/5/2023	306 (AVG)	72-540	500	N/A	Salt presence in the water is generally naturally occurring
Hardness (ppm)	10/7/2021	1100	N/A	N/A	N/A	Sum of polyvalent cations present in the water, generally magnesium and calcium 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
Nitrate as NO3 (ppm)	7/7/2021	1	N/A	45	45	
Perchlorate (ppb)	2023	1.78 (avg)	0.82-8.3*	6	1	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts
Chromium Hexavalent (ppb)	7/14/2016	0.729 (avg)	0.059-1.4	100	100	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits.
Barium (ppb)	2016	620	N/A	2000	2000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate as N (ppb)	2023	0.32 (avg)	0-30.6	100	100	Runoff and leaching from fertilized use; leaching from septic tanks and sewage; erosion of natural deposits.
Fluoride (ppb)	2021	3.5 (avg)	3-4	4000	4000	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
N-Nitrosodimethylamine (NDMA) ng/L	2023	12.5 (avg)	6.9-17	N/A	N/A	NDMA can be unintentionally produced in and released from industrial sources through chemical reactions, such as those that involve alkylamines with nitrogen oxides, nitrous acid or nitrite salts. Potential industrial sources include byproducts from tanneries, pesticide manufacturing plants, rubber and tire manufacturers, alkylamine manufacture and use sites, fish processing facilities, foundries and dye manufacturers

Table 5. Sampling Results for Radioactive Contaminants (continued)

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	MCL (AL) [MRDL]	PHG (MCLG) [MRDLG]	Typical Sources of Contamination
Gross Alpha particle activity (pCi/L)	2023	13.6-22*	15	15	Erosion of natural deposits
Uranium (pCi/L)	2023	16-19	20	30 ug/L	Erosion of natural deposits

Ra-226 &Ra-228 (pCi/L)	2023	0	5	0.05	Erosion of natural deposits
Ra-228 (pCi/L)	2023	0	5	0.019	Erosion of natural deposits

Table 5 Secondary Regulated Substances-not health related

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (ppm)	4/5/2023	435	N/A	500	N/A	This MCL is established for Aesthetic purposes only (taste, odor, or appearance) and is void of health effects.
Sulfate (ppm)	5/12/2020	580* (avg)	550-610	500	N/A	This MCL is established for Aesthetic purposes only (taste, odor, or appearance) and is void of health effects.
Specific Conductance (µS/cm)	2023	2815* (avg)	11-2700	1600	N/A	This MCL is established for Aesthetic purposes only (taste, odor, or appearance) and is void of health effects.
Total Dissolved Solids (ppm	2023	1242* (avg)	11-2700*	1000	N/A	This MCL is established for Aesthetic purposes only (taste, odor, or appearance) and is void of health effects.
Turbidity Units (NTU)	2020	13.6* (avg)	0.79-26	5	N/A	This MCL is established for Aesthetic purposes only (taste, odor, or appearance) and is void of health effects.
Iron (ppb)	2023	460 (avg)	170-460*	300	N/A	This MCL is established for Aesthetic purposes only (taste, odor, or appearance) and is void of health effects.

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 U.S. EPA'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. U.S. EPA/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: 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. [Enter Water System's Name] 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 (1-800-426-4791) or at http://www.epa.gov/lead.

Additional Special Language for Nitrate, Arsenic, Lead, Radon, and *Cryptosporidium*: [Enter Additional Information Described in Instructions for SWS CCR Document]

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

Table 6. Violation of a MCL, MRDL, AL, TT or Monitoring Reporting Requirement

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
Perchlorate	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts	Periodic	PacSci-EMC utilizes an ion exchange unit that reduces perchlorate to well below the MCL prior to distribution.	Perchlorate has been shown to interfere with uptake of iodide by the thyroid gland, and to thereby reduce the production of thyroid hormones, leading to adverse effects associated with inadequate hormone levels. Thyroid hormones are needed for normal prenatal growth and development of the fetus, as well as for normal growth and development in the infant and child. In adults, thyroid hormones are needed for normal metabolism and mental function.
Sulfate	Runoff/leaching from natural deposits.	Persistent	PacSci-EMC utilizes a reverse osmosis system which reduces the Specific Conductance to within the MCL or purchases water that meets the MCL requirement.	This MCL is established for Aesthetic purposes only (taste, odor, or appearance) and is void of health effects.
Specific Conductance (µS/cm)	PacSci-EMC water is naturally high in dissolved solids.	Persistent	PacSci-EMC utilizes a reverse osmosis system which reduces the Specific Conductance to within the MCL or purchases water that meets the MCL requirement.	This MCL is established for Aesthetic purposes only (taste, odor, or appearance) and is void of health effects.

Table 6. Violation of a MCL, MRDL, AL, TT or Monitoring Reporting Requirement (continued)

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
Total Dissolved Solids (TDS)	PacSci-EMC water is naturally high in dissolved solids.	Persistent	PacSci-EMC utilizes a reverse osmosis system which reduces the Specific Conductance to within the MCL or purchases water that meets the MCL requirement.	This MCL is established for Aesthetic purposes only (taste, odor, or appearance) and is void of health effects.
Turbidity	Believed to be due to well work.	One time anomaly	PacSci-EMC utilizes a reverse osmosis system which reduces the Specific Conductance to within the MCL or purchases water that meets the MCL requirement.	This MCL is established for Aesthetic purposes only (taste, odor, or appearance) and is void of health effects.
Gross Alpha particle activity (pCi/L)	Naturally occurring. Recent elevation levels possibly drought related. **Note: No violation of the Drinking Water Standard occurs unless a running four-quarter average exceeds the MCL.**	Periodically exceeds MCL	PacSci-EMC is currently utilizing purchased water for drinking that meets the MCL requirement.	The health effect of alpha particles depends upon how exposure takes place. External exposure is far less of a concern than internal exposure because alpha particles lack the energy to penetrate the outer dead layer of skin. If alpha emitters have been inhaled, ingested, or absorbed into the blood stream, living tissue may be exposed. Exposure of living tissue to alpha radiation is associated with an increased risk of cancer, in particular lung cancer (inhalation). The greatest exposure to alpha radiation comes from the inhalation of radon and its decay products, several of which also emit potent alpha radiation.
Coliform	Naturally present in the environment	~2 weeks total	Disinfection using sodium hypochlorite	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. Note: PacSci is currently serving purchased water to drinking water sinks, but not bathroom sinks.
Iron	Leaching from natural deposits; industrial wastes	Periodic	No current treatment	This MCL is established for Aesthetic purposes only (taste, odor, or appearance) and is void of health effects.