

MCWD Consumer Confidence Report 2022



Operator collecting a water sample at an upgraded sample station.

MCWD Consumer Confidence Report

Marina Coast Water District is proud to present the 2022 Consumer Confidence Report. This annual water quality report includes information about where your water comes from, what it contains, and how it compares to drinking water standards. As in the past, the District gives you the assurance that your drinking

water meets stringent California and Federal drinking water standards.

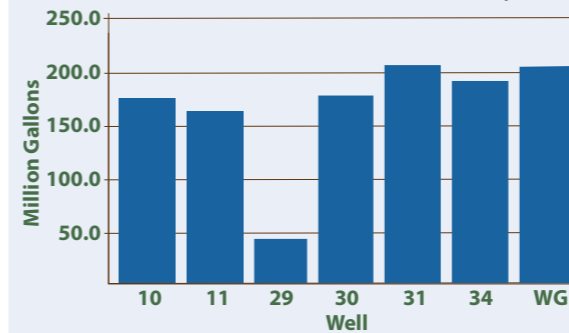
If you have any questions regarding the information in this report or about your water, please contact the Operation and Maintenance Manager, Derek Cray at (831) 883-5903. You can also visit our website at www.mcwd.org.

Water Supply and Treatment

The District provides groundwater produced from seven wells delivered through a distribution system network of eight storage tanks and nearly 215 miles of water main pipeline.

Two deep supply wells (10 and 11) located in Central Marina, draw groundwater from the 900-foot aquifer in the Salinas Valley Groundwater Basin where the water is then treated on-site for disinfection. The remaining five supply wells (29, 30, 31, 34, and Watkins Gate) located in the Ord Community, draw groundwater from the Salinas Valley Groundwater Basin's 900-foot, 400-foot, and lower 180-foot aquifers. Groundwater from these supply wells is disinfected in the Ord Community chlorination treatment facility.

2022 Production Summary



Source Water Assessment

Several source water assessments have been completed. Source water assessments consider several factors which include: the presence of possible contaminating activity (PCA) such as current or historic human activities that are potential origins of contamination for a drinking water source, its proximity to the source, the risk associated with the PCA, and the construction and setting of the source. These factors are then ranked, and the source considered most vulnerable to the PCAs is listed at the top of the ranking.

In July 2001, the California Department of Public Health (CDPH) completed an assessment of each groundwater supply well in Central Marina which concluded that the wells are most vulnerable to historic waste dumps, landfill activities, and military installations.

In February 2002, an assessment was completed of each groundwater supply well in the Ord Community. The assessment showed which of the wells are most vul-

nerable to known volatile organic contaminant plumes from the closed landfill on the former Fort Ord; some plumes include saltwater intrusion, sewer collection system, above-ground storage tanks, irrigated crops, transportation corridors, farm machinery repair sites, and septic systems.

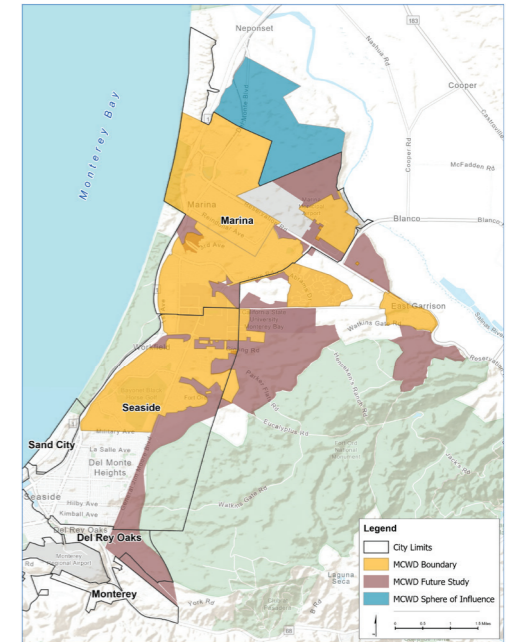
In November 2012, a completed source assessment for the Watkins Gate Well determined that the well was most vulnerable to Military Installations.

In February 2014, a completed assessment for Well 34 determined that the well was most vulnerable to Military installations (former Fort Ord), agricultural drainage, saltwater intrusion, and sewer collection systems.

Full details of the assessments may be viewed at the following locations: MCWD, 11 Reservation Road, Marina, CA, or at SWRCB DDW, 1 Lower Ragsdale Drive, Building 1, Suite 120, Monterey, CA.

Báo cáo này chứa thông tin rất quan trọng về nước uống của bạn. Vui lòng truy cập trang web của chúng tôi cho một phiên bản dịch của báo cáo này, hoặc liên hệ với chúng tôi tại (831) 384-6131 để hỗ trợ thêm.
www.mcwd.org

이 보고서에는 식수에 대한 매우 중요한 정보가 포함되어 있습니다. 이 보고서의 번역된 버전은 당사 웹 사이트를 방문하거나 (831) 384-6131로 연락하여 추가 지원을 받으십시오.
www.mcwd.org



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Mission Statement: We provide our customers with high quality water, wastewater collection and conservation services at a reasonable cost, through planning, management and the development of water resources in an environmentally sensitive manner.

Board meetings are open to the public and are normally held on the third Monday of every month at the MCWD offices at 920 2nd Avenue, Suite A, Marina at 6:30 p.m. Agendas are posted in the following places at least 72 hours before each meeting: Marina Coast Water District, Marina and Seaside City Halls, Marina and Seaside Libraries and the Marina Post Office.

Follow the District on Nextdoor, Twitter, and Facebook



Este informe contiene información muy importante sobre su agua potable. Visite nuestro sitio web para obtener una versión traducida de este informe, o póngase en contacto con nosotros al (831) 384-6131 para obtener más ayuda.
www.mcwd.org

Ang ulat na ito ay naglalaman ng napakahalagang impormasyon tungkol sa iyong inuming tubig. Mangyaring bisitahin ang aming website para sa isang isinalin na bersyon ng ulat na ito, o makipag-ugnay sa amin sa (831) 384-6131 para sa karagdagang tulong.
www.mcwd.org

Water Quality

The District diligently monitors water quality for drinking water and once again, is proud to report that your tap water meets California and Federal drinking water standards.

Federal Unregulated Contaminants Monitoring Rule-4 (UCMR-4)

In 2020, the District participated in the fourth phase of the Unregulated Contaminant Monitoring Rule (UCMR-4). Unregulated contaminants are those for which the EPA has not yet established drinking water standards. Monitoring assists the EPA in determining the occurrence of these compounds and whether or not regulation is warranted. Our system monitored for 20 chemicals as specified by the U.S. Environmental Protection Agency (USEPA). The results were reported directly to the USEPA. Detections are summarized in the UCMR4 table, along with typical contaminant sources. Marina Coast Water District's UCMR4 report is available in full by visiting our website at https://www.mcwd.org/gsa_water_quality.html.

Visit <https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule> for general information on UCMR4.

Trichloroethylene (TCE)

TCE was a common solvent used by the U.S. Army on the former Fort Ord. In 2022, TCE was detected in wells 29, 30, and 31 at low levels, with the average level from the source wells at 0.4 parts per billion (ppb). The Public Health Goal (PHG), which is determined by a level that would not cause significant adverse health effects in people who drink the same water every day for 70 years, is 1.7 ppb for TCE. The Maximum Contaminant Level (MCL), which is the maximum level of a contaminant that can be within the drinking water, is 5 ppb for TCE. The District continues to regularly monitor for TCE in its water supply.

The U.S. Army is actively cleaning up the shallow groundwater plumes of TCE within the former Fort Ord lands. They also operate a network of shallow groundwater monitoring wells to track the progress of the TCE cleanup efforts. The U.S. Army groundwater monitoring wells do not supply drinking water to District customers. For more information on the ongoing cleanup efforts, please visit <https://fortordcleanup.com/programs/groundwater/>.

Per-and-Poly-Fluoroalkyl Substances (PFAS)

When the former Fort Ord was in service, the U.S. Army used foaming agents with PFAS to put out fuel fires. Due to the chemical makeup, PFAS are long-lasting chemicals that break down very slowly over time in the environment. Thousands of chemicals fall under the PFAS umbrella. Currently,

there are four specific analytes that have State required Notification or Response levels: perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), perfluorobutanesulfonic acid (PFBS), and perfluorohexanesulfonic acid (PFHxS). The District performed PFAS testing in all wells in 2022, and well 29 has been found to have low levels of Perfluorohexanoic Acid (PFHxA) present. All other wells were non-detect for PFAS chemicals that were sampled in 2022. Unregulated contaminant monitoring, such as monitoring for PFAS, helps the U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated. The District continues to closely monitor well 29 and the other six wells voluntarily for PFAS. To learn more information on PFAS, please visit <https://www.waterboards.ca.gov/pfas/> or <https://www.epa.gov/pfas>.

Nitrate

Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women, and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.

Arsenic

While your drinking water meets the federal and state stan-

dard 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.

Lead

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. Marina Coast Water 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 in the pipes 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 or at <http://www.epa.gov/lead>.

A Notice on Radon

Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes,

and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause an increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. You should pursue radon removal for your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call your State radon program (1-800-745-7236), the U.S. EPA Safe Drinking Water Hotline (1-800-426-4791), or the National Safety Council Radon Hotline (1 800-767-7236).



Operator checks chlorine residual to ensure disinfection standards are met.

What Are the Sources of Contaminants?

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 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, 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 applications, 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 U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Water Board) prescribe regulations that limit the number of certain contaminants in water provided by public water systems. State Water Board regula-

tions also establish limits for contaminants in bottled water that provide the same protection for public health.

A note to the Immuno-compromised: 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 healthcare 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).

How to Read Water Quality Tables

The following tables list the results of detected contaminants in the District’s distribution system and groundwater supply wells. While most monitoring was completed through December 2022, regulations allow the District to monitor certain chemicals less than once per year because the levels do not change frequently. The test results are divided into the following sections: Primary Drinking Water Standards, Secondary Drinking

Water Standards, Other Constituents, and Unregulated Contaminants. To help better understand the report, use the Definitions of Terms given below.

To read the table, start with the column titled *Detected Contaminant(s)* and read across the row. *Units* express the amount measured. *MCL* shows the highest amount of contaminant allowed. *PHG/MCLG* is the goal amount for that contaminant (this may be lower

than what is allowed). *Year Tested* is usually in 2022 or for some contaminants, the most recent sampling year. *Annual Average* is the average amount measured or detected. *Range* tells the lowest and highest amounts measured. A *No Violation* indicates that regulation requirements were met. *Major Sources in Drinking Water* tell where the contaminant usually originates.

Distribution System Water Quality

PRIMARY DRINKING WATER STANDARDS — Microbiology

Detected Contaminant	Units	MCL	(MCLG)	Year Tested	Total Samples Collected & Month Positive	Violation	Major Sources in Drinking Water
Total Coliform Bacteria	Positive Samples	TT	(0)	2022	520 Samples No Positive Samples	No	Naturally present in the environment.

PRIMARY DRINKING WATER STANDARDS — Disinfection Byproducts & Disinfectant Residual

Detected Contaminants	Units	MCL [MRDL]	PHG (MCLG) [MRDLG]	Year Tested	Annual Average	Range Low - High	Violation	Major Sources in Drinking Water
Total Trihalomethanes (TTHM)	ug/L	80	n/a	2022	7.7 ^(a)	3.8 - 10	No	Byproduct of drinking water disinfection.
Chlorine Residual [as Cl ₂]	mg/L	[4.0]	[4]	2022	0.87	0.36 - 1.81	No	Drinking water disinfectant added for treatment.

PRIMARY DRINKING WATER STANDARDS — Lead & Copper Indoor Tap Samples

Detected Contaminant	Units	Action Level	PHG	Year Tested	90th Percentile ^(*)	Range Low - High	Violation	Number of Schools Requesting Lead Sampling	Major Sources in Drinking Water
Copper	mg/L	1.3	0.3	2022	0.2	30 sites sampled; 0 over the AL	No	0	Internal corrosion of household plumbing systems.
Lead	ug/L	15	0.2	2022	0.99	30 sites sampled; 0 over the AL	No	0	Internal corrosion of household plumbing systems.

(a) Average is calculated by the highest running annual average.

(*) 90th Percentile Level: For compliance, the sample result at the 90th percentile level must be less than the Action Level.

Definitions of Terms Used

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.

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.

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

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.

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

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

UCMR: Unregulated Chemicals Monitoring Rule that helps EPA and CDPH to determine where certain contaminants occur and need to be regulated.

MRL: Method Reporting Limit or the lower-limit of quantitation

n/a: Not Applicable

ND: Non-Detected

Notification Level: DDW established health-based advisory levels for chemicals in drinking water that lack maximum contaminant levels

NTU: Nephelometric Turbidity Units

pCi/L: Picouries per liter

mg/L: Milligrams per liter

ug/L: Micrograms per liter

ng/L: Nanograms per liter

TON: Threshold Odor Number

Units	Equivalence
mg/L – milligrams per liter	ppm – parts per million 1 second in 11.5 days
ug/L – micrograms per liter	ppb – parts per billion 1 second in nearly 32 years
ng/L – nanograms per liter	ppt – parts per trillion 1 second in nearly 32,000 years
pg/L – picograms per liter	ppq – parts per quadrillion 1 second in nearly 32,000,000 years

Groundwater Supply Wells Water Quality

Detected Contaminants	Units	MCL	PHG (MCLG)	Year Tested	Annual Average	Range Low - High	Violation	Major Sources in Drinking Water
PRIMARY DRINKING WATER STANDARDS								
Arsenic	ug/L	10	0.004	2022	2.7	ND - 6.8	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.
Fluoride (Natural)	mg/L	2.0	1	2022	0.2	0.11 - 0.26	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Gross Alpha particle activity	pCi/L	15	(Zero)	2022	1.3	ND - 5.37	No	Erosion of natural deposits.
Nitrate (as N)	mg/L	10	10	2022	2.0	ND - 5.8	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.
Trichloroethylene [TCE]	ug/L	5	1.7	2022	0.4	ND - 2.3	No	Discharge from metal degreasing sites and other factories.
Uranium	pCi/L	20	0.43	2022	1.5	ND - 5.9	No	Erosion of natural deposits.
SECONDARY DRINKING WATER STANDARDS								
Chloride	mg/L	500	n/a	2022	96.2	54.1 - 180	No	Runoff/leaching from natural deposits; seawater influence.
Odor	TON	3	n/a	2022	0.4	ND - 1.0	No	Naturally-occurring organic materials
pH Units	Units	6.5 - 8.5	n/a	2022	8.0	7.8 - 8.2	No	Naturally-occurring minerals.
Specific Conductance	µS/cm	1600	n/a	2022	661.4	490 - 980	No	Substances that form ions when in water; seawater influence.
Sulfate	mg/L	500	n/a	2022	52.9	36 - 65	No	Runoff/leaching from natural deposits; industrial wastes.
Total Dissolved Solids	mg/L	1000	n/a	2022	391.4	290 - 550	No	Runoff/leaching from natural deposits.
Turbidity	NTU	5	n/a	2022	0.1	ND - 0.15	No	Soil run-off.
OTHER CONSTITUENTS — No Drinking Water Standards								
Alkalinity	mg/L	n/a	n/a	2022	126.7	97 - 180	n/a	Naturally-occurring minerals.
Bicarbonate Alkalinity	mg/L	n/a	n/a	2022	126.7	97 - 180	n/a	Naturally-occurring minerals.
Calcium	mg/L	n/a	n/a	2022	42.6	23 - 62	n/a	Naturally-occurring minerals.
Magnesium	mg/L	n/a	n/a	2022	14.3	6.2 - 21.0	n/a	Naturally-occurring minerals.
Potassium	mg/L	n/a	n/a	2022	2.7	1.9 - 3.6	n/a	Naturally-occurring minerals.
Sodium	mg/L	n/a	n/a	2022	65.4	39 - 110	n/a	Naturally-occurring minerals.
Hardness ^(a)	mg/L	n/a	n/a	2022	165.7	83 - 230	n/a	Naturally-occurring minerals.
UNREGULATED CONTAMINANTS — No Drinking Water Standards								
Boron	ug/L	n/a	n/a	2022	90.0	77 - 190	n/a	Erosion of natural deposits.
Bromide	mg/L	n/a	n/a	2021/ 2022 ^(b)	0.3	0.2 - 0.6	n/a	Naturally-occurring minerals.
Hexavalent Chromium	ug/L	n/a	n/a	2022	3.2	ND - 6	n/a	Industrial process byproduct.
Perfluorohexanoic acid (PFHxA)	ng/L	n/a	n/a	2022	0.4	ND - 3.5	n/a	Breakdown product of stain- and greaser-proof food coatings.
Vanadium	ug/L	n/a	n/a	2022	7.0	ND - 16	n/a	Erosion of natural deposits.

Footnotes:

(a) Water hardness unit conversion: 17.1 GPG/mg/L.Total hardness (annual average) = 9.7 grains/gallon (GPG); Total hardness (range) = 4.85 GPG - 13.45 GPG.

(b) Well 31 sampled in 2021, all other wells were sampled in 2022.

Unregulated Contaminant Monitoring – UCMR4

ENTRY POINT TO THE DISTRIBUTION SYSTEM

Detected Contaminants	Units	Year Tested	Annual Average	Range Low - High	Violation	Major Sources in Drinking Water
Germanium Total	ug/L	2020	0.3	ND - 0.66	n/a	Naturally occurring element.
Manganese Total	ug/L	2020	2.5	ND - 8.8	n/a	Leaching from natural deposits.
Bromide	ug/L	2020	324.3	200 - 610	n/a	Naturally occurring element.
Total Organic Carbon	ug/L	2020	31.43	ND - 220	n/a	Medium for the formation of disinfection byproducts.

DISTRIBUTION SYSTEM MAXIMUM RESIDENCE TIME

Bromochloroacetic acid	ug/L	2020	0.2	ND - 0.61	n/a	Byproduct of drinking water disinfection.
Chlorodibromoacetic acid	ug/L	2020	0.4	0.32 - 0.44	n/a	Byproduct of drinking water disinfection.
Dibromoacetic acid	ug/L	2020	0.9	0.47 - 1.4	n/a	Byproduct of drinking water disinfection.
Dichloroacetic acid	ug/L	2020	0.7	ND - 1.5	n/a	Byproduct of drinking water disinfection.
Total HAA5	ug/L	2020	1.5	0.7 - 2.7	n/a	Byproduct of drinking water disinfection.
Total HAA6Br	ug/L	2020	2.7	0.8 - 4.6	n/a	Byproduct of drinking water disinfection.
Total HAA9	ug/L	2020	3.4	1.0 - 6.0	n/a	Byproduct of drinking water disinfection.
Tribromoacetic acid	ug/L	2020	1.3	ND - 2.2	n/a	Byproduct of drinking water disinfection.

No other samples taken in the UCMR4 study exceeded Notification levels. **The full Unregulated Contaminant Monitoring Report (UCMR4) report is available by visiting our website at https://www.mcwd.org/gsa_water_quality.html.**



Two 1.6 million gallon storage reservoirs were constructed in 2022 to improve the District's storage capacity.

Educational Information and Special Health Information

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 U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

Other Water Information Sources

CA State Water Resources Control Board Division of Drinking Water Programs:

waterboards.ca.gov/drinking_water/programs

USEPA Division of Ground Water and Drinking Water:

water.epa.gov/drink

Centers for Disease Control: cdc.gov

Fort Ord Cleanup Project: fortordcleanup.com