

## 2021 Consumer Confidence Report

### Water System Information

Water System Name: City of Live Oak

Report Date: May 9, 2022

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

**Name and General Location of Source(s):** Well, 1A/2A 10046 O Street, Well Three 2455 Walker Way, Well Four 2658 Apricot Street, Well Seven 11391 Larkin Road

**Drinking Water Source Assessment Information:** The City of Live Oak wells are located within the Sacramento Valley Groundwater Basin, East Butte Subbasin.

**Time and Place of Regularly Scheduled Board Meetings for Public Participation:** City Hall, 9955 Live Oak Blvd: First and third Wednesday of every month at 6 PM.

**For More Information, Contact:** City Hall 530-695-2112

### 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, 2021 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 [Enter Water System's Name] a [Enter Water System's Address or Phone Number] 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 [Enter Water System Name] 以获得中文的帮助: [Enter Water System's Address][Enter Water System's Phone Number].

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa [Enter Water System's Name and Address] o tumawag sa [Enter Water System's Phone Number] para 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 [Enter Water System's Name] tại [Enter Water System's Address or Phone Number] 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 [Enter Water System's Name] ntawm [Enter Water System's Address or Phone Number] 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 <i>E. coli</i> 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)



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

**Table 1.A. Compliance with Total Coliform MCL between January 1, 2021, and June 30, 2021 (inclusive)**

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	0	0	1 positive monthly sample (a)	0	Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	0	0	0	None	Human and animal fecal waste

**Table 1. Sampling Results Showing the Detection of Lead and Copper**

Complete if lead or copper is detected in the last sample set.

Lead and Copper	Sample Date	No. of Samples Collected	90 <sup>th</sup> Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead ppb	October 2020	28	5.24 ppb	1	15	0.2	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper ppm	October 2020	28	.0224 ppm	0	1.3	0.3	Not applicable	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

**Table 2. 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)	2014	24mg/L	21-24 mg/L	None	None	Salt present in the water and is generally naturally occurring



Hardness (ppm)	2014	223	160-280	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
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**Table 3. 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
Arsenic (Treated drinking water)	2021	6.1ug/L	2.1 to 18 ug/L	10 ug/L	0.004 ug/L	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium	2012	135 ug/L	130.0 to 140.0 mg/L	1,000 ug/L	2,000 ug/L	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Hexavalent Chromium	2016	9.87 ug/L	8.5 to 11 ug/L	10 ug/L	0.02 ug/L	In addition to natural sources, hexavalent chromium enters drinking water sources through discharges of dye and paint pigments, wood preservatives, chrome plating wastes, and leaching from hazardous waste sites.
Chromium (Total)	2021	7.65 ug/L	3.9 to 11 ug/L	50 ug/L	(100)	Discharge from steel and pulp

						mills and chrome plating; erosion of natural deposits
Nitrate (as NO <sub>3</sub> )	2021	5.47 mg/L	2.05 to 10.5 mg/L	45 mg/L	45 mg/L	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Total Trihalomethanes	2021	4.7 ug/L	4.4 to 4.7 ug/L	80 ug/L	N/A	Byproduct of drinking water disinfection

**Table 4. Detection of Contaminants with a Secondary Drinking Water Standard**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	SMCL	Typical Source of Contaminant
Manganese	2019	20 ug/L	84 to 91 ug/L	50 ug/L	Leaching from natural deposits.
Iron	2019	100 ug/L	280 ug/L	200 ug/L	Leaching from natural deposits

### 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. The City of Live Oak 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>.

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

**Table 7. Violation of a MCL, MRDL, AL, TT or Monitoring Reporting Requirement**

<b>Violation</b>	<b>Explanation</b>	<b>Duration</b>	<b>Actions Taken to Correct Violation</b>	<b>Health Effects Language</b>
Treated Arsenic	Well 7 had two samples with result that were above the limit of 10 ug/L when it was going through startup.	Result for sample taken on 9-15-2021 was 17 ug/L and on 9-21-2021 the result for sample was 17ug/L. The next sample taken on 9-24-2021 was 10 ug/L.	Once the city received notification that the sample were over 10 ug/L, staff adjusted the process to increase arsenic removal.	Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems and may have an increased risk of getting cancer.
Treated Arsenic	Well 3 had one sample for treated arsenic that resulted in 13 ug/L.	Result for sample taken on 9-14-2021 was 13 ug/L and on 9-21-2021 the result for sample was 2.6 ug/L.	Once the city received notification that the sample were over 10 ug/L, staff adjusted the process to increase arsenic removal.	Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems and may have an increased risk of getting cancer.

**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**

### For Water Systems Providing Groundwater as a Source of Drinking Water

**Table 8. Sampling Results Showing Fecal Indicator-Positive Groundwater Source Samples**

<b>Microbiological Contaminants (complete if fecal-indicator detected)</b>	<b>Total No. of Detections</b>	<b>MCL [MRDL]</b>	<b>PHG (MCLG) [MRDLG]</b>	<b>Typical Source of Contaminant</b>
<i>E. coli</i>	0	0	(0)	Human and animal fecal waste
Enterococci	0	TT	N/A	Human and animal fecal waste
Coliphage	0	TT	N/A	Human and animal fecal waste