2024 Consumer Confidence Report

Water System Information

Water System Name: **California State Prison - Solano**

Report Date: **April 2025**

Type of Water Source(s) in Use: Surface water and Ground water

Name and General Location of Source(s): Lake Berryessa Via the Putah Canal and City of Vacaville supplied water.

Time and Place of Regularly Scheduled Board Meetings for Public Participation: N/A

For More Information, Contact: Billy R Butler Jr. Phone: 707-451-0182 EX: 5814 or 5862

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 [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 *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)

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, and 3 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.

Within the tables, “NA” means “not applicable” and refers to situations in which the California Environmental Protection Agency has not established MCLs, secondary MCLs, or PHGs for specified contaminants.

Table 1. Sampling Results for Sodium and Hardness

Chemical or Constituent (and reporting units)	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	16	NA	NA	NA	Runoff/leaching from natural deposits; seawater influence.
Hardness (ppm)	157	NA	NA	NA	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

Table 2. Detection of Contaminants with a Primary Drinking Water Standard

Chemical or Constituent (and reporting units)	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Trihalomethanes (ug/L)	29	19-42.3	80	NA	By-product of chlorination
Haloacetic Acids (ug/L)	13	6.5-26.1	60	NA	By-product of chlorination
Disinfectant Residual (mg/L)	1.6	1.5-1.9	4	NA	Chlorine
Hexavalent Chromium	0.34	NA	10	NA	Industrial Sources and Natural geological processes.

Table 3. Detection of Contaminants with a Secondary Drinking Water Standard

Chemical or Constituent (and reporting units)	Level Detected	Range of Detections	SMCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (ppm)	14	NA	250	NA	Runoff/leaching from natural deposits; seawater influence.
Total dissolved solids (ppm)	190	NA	500	NA	Runoff/leaching from natural deposits; seawater influence.
Color (CU)	<5.0	NA	15	NA	Naturally-occurring organic materials.
Odor (T.O.N.)	<1.0	NA	3	NA	Naturally-occurring organic materials.
Sulfate as SO4	36	NA	250	NA	Naturally-occurring organic materials.
Iron	ND	NA	0.3	NA	Naturally-occurring organic materials.
Manganese	ND	NA	50	NA	Naturally-occurring organic materials.

PURCHASED WATER SOURCE

2024 City of Vacaville Water Quality Report Tables

Table 3 - SAMPLING RESULTS FOR SODIUM AND HARDNESS

Constituent (reporting units)	2023 GROUNDWATER Range	2023 GROUNDWATER Average	2024 TREATED SURFACE WATER from NBR Range	2024 TREATED SURFACE WATER from NBR Average	2024 TREATED SURFACE WATER from VWTP Range	2024 TREATED SURFACE WATER from VWTP Average	
Hardness (ppm)	76-300	177	140 - 194	176	163	163	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring.
Sodium (ppm)	43-80	57	19 - 27	24	18	18	Salt present in the water and is generally naturally occurring.

Table 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Constituent (reporting units)	MCL	PHG (MCLG)	2023-2024 GROUNDWATER Range	2023-2024 GROUNDWATER Average	2024 TREATED SURFACE WATER from NBR Range	2024 TREATED SURFACE WATER from NBR Average	2024 TREATED SURFACE WATER from VWTP Range	2024 TREATED SURFACE WATER from VWTP Average	Contaminant Sources
Aluminum (ppm)	1	0.6	nd	nd	0.03 -0.06	0.04	nd	nd	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	10	0.004	2.0 - 8.2	4.8	nd	nd	nd	nd	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	1	2	0.07-0.14	0.10	0.04-0.05	0.04	nd	nd	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium, total (ppb)	50	(100)	12 - 25	19	1.1 - 3.4	2.3	nd	nd	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.
Nitrate as N (ppm)	10	10	0.32 - 3.5	1.4	0.07-0.20	0.13	nd	nd	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	50	30	2.1 - 2.5	2.3	nd	nd	nd	nd	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
Fluoride (ppm)	2.0	1	System-wide annual average = 0.75, minimum = 0.16, maximum = 0.75						Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.

Constituent (reporting units)	MCL	PHG (MCLG)	2020 GROUNDWATER Range	2020 GROUNDWATER Average	2020 TREATED SURFACE WATER from VWTP Average	2020 TREATED SURFACE WATER from VWTP Average	Contaminant Sources
Gross Alpha Activity (pCi/L)	15	0	1.9 - 4.1	3.1	2.8	2.8	Erosion of natural deposits

Table 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Constituent (reporting units)	MCL	2023 GROUNDWATER Range	2023 GROUNDWATER Average	2024 TREATED SURFACE WATER from NBR Range	2024 TREATED SURFACE WATER from NBR Average	2024 TREATED SURFACE WATER from VWTP Range	2024 TREATED SURFACE WATER from VWTP Average	Contaminant Sources
Turbidity (units)	TT=5.0 NTU TT=95% of samples ≤0.5 NTU	nd - 1.3	0.51	0.04 - 0.10	0.07	0.27	0.27	Soil runoff.
Odor- Threshold (units)	3	nd - 1	nd	1.4	1.4	nd	nd	Naturally-occurring organic materials.
Chloride (ppm)	500	7.4 - 78	23	8.6 - 10	9.2	15	15	Runoff/leaching from natural deposits; seawater influence.
Iron (ppm)	0.3	nd	nd	0.17	0.17	nd	nd	Leaching from natural deposits; industrial wastes
Manganese (ppb)	50	nd	nd	13	13	nd	nd	Leaching from natural deposits
Sulfate (ppm)	500	3.7 - 68	35	36 - 48	42	26	26	Runoff/leaching from natural deposits; seawater influence.
Total Dissolved Solids (ppm)	1000	290 - 530	373	180 - 250	218	220	220	Runoff/leaching from natural deposits.
Specific Conductance (µS/cm)	1600	450 - 820	589	380 - 447	416	390	390	Substances that form ions when in water; seawater influence.

Table 6 - DETECTION OF UNREGULATED CONTAMINANTS (Hexavalent Chromium and UCMR5)

Constituent (reporting units)	Sampling Date	Source Water		Distribution System		PHG (MCLG)	Health Effects
		Range	Average	Range	Average		
Hexavalent Chromium (ppb)	2023-2024	1.8 - 30	14	2.0	2.0	0.02	Some people who use water containing chromium in excess of the MCL over many years may experience allergic dermatitis.
Constituent (reporting units)	**Sampling Date**	**Range**	**Average**	**Range**	**Average**	**UCMR 5**	
Lithium (ppb)	2023-2024	17 - 45	28	nd	12	The Safe Drinking Water Act (SDWA) requires that once every five years the EPA issue a list of unregulated contaminants to be monitored by public water systems. Unregulated contaminant monitoring helps the USEPA and the Cal EPA determine where certain contaminants occur and whether the contaminants need to be regulated The fifth Unregulated Contaminant Monitoring Rule (UCMR 5) was published on December 27, 2021. UCMR 5 requires sample collection for 30 chemical contaminants between 2023 and 2025. The data collected under UCMR 5 improves understanding of the prevalence and amount of 29 per- and polyfluoroalkyl substances (PFAS) and lithium in the nation's drinking water systems. The City of Vacaville is scheduled to complete the UCMR5 program data collection in December 2025.	
Perfluorooctanoic acid (PFOA) (ppb)		nd - 0.005	nd	nd	nd		
Perfluorooctanesulfonic acid (PFOS) (ppb)		0.002-0.010	0.002	nd	nd		
Perfluorohexanesulfonic acid (PFHxS) (ppb)		0.002-0.009	0.002	nd	nd		
Perfluorobutanesulfonic acid (PFBS) (ppb)		0.001-0.004	0.001	nd	nd		

Table 7 - DETECTION OF DISINFECTION BYPRODUCTS

Constituent (reporting units)	MCL or MRDL	MCLG or MRDLG	Average	Minimum	Maximum	Contaminant Sources
DBP Precursors/TOC (ppm)	TT	na	2.1	1.7	2.9	Various natural and man-made sources.
Chlorine (ppm)	4.0	4	1.11	<0.1	2.0	Drinking water disinfectant added for treatment

Table 8 - DETECTION OF CONTAMINANTS WITH NOTIFICATION LEVELS

Constituent (reporting units)	Notification Level	2023 GROUNDWATER		2024 TREATED SURFACE WATER from NBR		2024 TREATED SURFACE WATER from VWTP		Health Effects
		Range	Average	Range	Average	Range	Average	
Boron (ppm)	1	nd	nd	nd	nd	0.18	0.18	Boron exposures resulted in decreased fetal weight (developmental effects) in newborn rats.
Manganese (ppb)	500	nd	nd	13	13	nd	nd	Leaching from natural deposits
Vanadium (ppb)	50	na	na	3.1	3.1	nd	nd	Vanadium exposures resulted in developmental and reproductive effects in rats

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).

For Systems Providing Surface Water as a Source of Drinking Water

Table 4. Sampling Results Showing Treatment of Surface Water Sources

Treatment Technique [(a)] (Type of approved filtration technology used)	Multi Media Filtration
Turbidity Performance Standards [(b)] (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to 0.3 NTU in 95% of measurements in a month. 2 – Not exceed 0.5 NTU for more than eight consecutive hours. 3 – Not exceed 1.0 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.199 NTU on 1-14-2024
Number of violations of any surface water treatment requirements	0

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

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.