2025 PUBLIC HEALTH GOALS REPORT

PREPARED FOR:

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES
SACRAMENTO, CALIFORNIA

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BACKGROUND

The California Health and Safety Code (Section 116470(b)) requires that public water systems with 10,000 or more service connections prepare a special report every three years if water quality measurements exceed a Public Health Goal (PHG). Attachment 1 includes Section 116470(b).

The report must be completed by July 1 of the year in which it is due and new reports are required every three years. The City of Sacramento Department of Utilities has prepared PHG reports since 1998, and the current report was completed by July 1, 2025, as required.

The PHG report must present information on (1) contaminants that have been detected above a PHG, (2) health risk information for the detected contaminants, (3) an estimate of the cost to install Best Available Technology to reduce the level of a given contaminant, and (4) what action, if any, the local water purveyor intends to take to reduce the concentration of the contaminant(s) and the basis for that decision.

The State Water Resources Control Board Division of Drinking Water (DDW) sets Maximum Contaminant Levels (MCLs) as close as feasible to the PHG taking treatment costs and available analytical and treatment technology into consideration. MCLs are enforceable limits that water purveyors must meet to protect public health. Attachment 2 includes a list of current MCLs and PHGs in California.

The California Office of Environmental Health Hazard Assessment (OEHHA) is required to determine and publish the "numerical public health risk" associated with PHGs and MCLs. This PHG report uses the most recent health risk information published by OEHHA. Attachment 3 presents the OEHHA health risk information used for this report (OEHHA, "Health Risk Information for PHG Exceedance Reports," February 2025).

This report identifies each contaminant that exceeded its PHG during the 2022 through 2024 period, describes the public health risk at both the PHG and the MCL, identifies the Best Available Technology (BAT) for treatment, and presents the estimated costs to install BAT to reduce levels of the contaminant.

In accordance with the California Health and Safety Code, only constituents that are regulated in drinking water, either with an MCL or Treatment Technique requirement, and for which either a PHG or Maximum Contaminant Level Goal (MCLG) has been set are to be included in the report. There are some regulated constituents that are routinely monitored and detected by water systems at levels below the drinking water standard for which no PHG or MCLG have yet been adopted. One example is disinfection byproducts, including trihalomethanes and haloacetic acids. These constituents will be addressed in a future report if PHGs are adopted by OEHHA.

What are Public Health Goals?

PHGs are non-enforceable goals established by OEHHA. PHGs are developed using available toxicological data in scientific literature. A PHG is the level below which OEHHA has determined that a drinking water contaminant does not pose a significant health risk. None of the practical risk-management factors that are considered by the US Environmental Protection Agency (USEPA) or DDW in setting enforceable drinking water standards are considered in setting the PHGs. Such factors include analytical detection capability, treatment technology availability, and benefits and costs. If a constituent does not have a PHG public water systems are to use Maximum Contaminant Level Goals (MCLGs), developed by the USEPA, for the preparation of this report. Like PHGs, MCLGs are the level of contaminant in drinking water at which the USEPA believes there are no known or expected risks to health, with a margin of safety. USEPA sets the MCL as close as feasible to the MCLG, taking costs and technology into consideration.

What is Best Available Technology (BAT)?

State law requires that at the same time DDW adopts a primary drinking water standard (i.e., health based) they identify BAT for the specific constituent being regulated. BATs are the best-known treatment methods to reduce contaminant levels to the MCL. To be considered BAT, the treatment must be proven effective under full-scale field applications.

What are Detection Limits for Purposes of Reporting (DLR)?

In addition, when DDW establishes a drinking water regulation, the Agency evaluates available analytical methods and sets a DLR for the constituent. DLRs are the lowest concentration of the constituent reliably measurable for reporting to determine compliance. A constituent is considered by DDW to be "detected" when measured concentrations are above the DLR.

What Water Quality Data was Reviewed to Prepare this Report?

The 2025 PHG report was prepared based upon a review of water quality data for the years 2022 through 2024. Water quality data was collected and reviewed for both surface water treatment plants (Sacramento River Water Treatment Plant and the E.A. Fairbairn Water Treatment Plant) and the City's wells.

What Guidelines were Followed in Preparing this Report?

The Association of California Water Agencies (ACWA) prepares guidelines for water utilities to use in producing their PHG reports. The most recent ACWA guidelines (ACWA, "2025 PHG Guidance") was used to prepare this report. No guidance materials are available from DDW regarding preparation of PHG reports. OEHHA publishes a document with health risk information for regulated constituents (OEHHA, Health Risk Information for Public Health Goal Exceedance Reports, February 2025).

Constituents Detected Above a PHG (or MCLG)

Table 1 presents the constituents that were detected by the City of Sacramento Department of Utilities above a PHG or an MCLG during 2022 through 2024.

Table 1: Constituents Detected Above PHG or MCLG (2022-2024)

Constituent	PHG (MCLG)	MCL
Arsenic	0.004 µg/L	10 µg/L
Gross alpha	(0)	15 pCi/L
Hexavalent chromium	0.02 µg/L	10 µg/L
Uranium	0.43 pCi/L	20 pCi/L
PFOA*	0.007 ng/L	4 ng/L
PFOS*	1 ng/L	4 ng/L

*µg/L = micrograms per liter (equivalent to parts per billion, ppb), pCi/L = picocuries per liter, ng/L = nanograms per liter (equivalent to parts per trillion, ppt), *MCLs for PFOA and PFOS were published in 2024 and are not yet in effect.*

Inorganic Chemicals

The following section of the PHG report presents a discussion of inorganic chemicals detected above their PHG.

Arsenic. The PHG for arsenic is 0.004 µg/L. The federal and state MCL for arsenic is 10 µg/L (the federal MCLG is 0 µg/L). The DLR for arsenic is 2 µg/L and at the present time there are no laboratory methods available that can reliably measure arsenic as low as the PHG. The health risk category associated with arsenic is carcinogenicity. At the PHG, the theoretical cancer risk is 1×10^{-6}. This means the 70-year lifetime cancer risk for drinking water at the PHG is 1 excess case of cancer per million people exposed. At the MCL of 10 µg/L, the theoretical cancer risk is 2.5×10^{-3}. This means the 70-year lifetime cancer risk for drinking water at the MCL is 2.5 excess cases per 1,000 people exposed.

The California DDW has identified the following treatment technologies as Best Available Technology for reducing arsenic levels in drinking water.

- Activated alumina
- Coagulation/filtration
- Ion Exchange
- Lime softening
- Reverse Osmosis
- Electrodialysis
- Oxidation/filtration

From the above list of Best Available Technology, the cost evaluation was conducted using ion exchange (IX), given that ion exchange is also BAT for hexavalent chromium (also included in this PHG report). The type of resin typically used for arsenic treatment (and hexavalent chromium treatment) is strong base anion (SBA) resin.

All samples that exceeded the arsenic PHG during 2022 through 2024 were in groundwater wells. Table 2 presents the 15 wells where detections exceeded the arsenic PHG during 2022 through 2024. The average level of arsenic where it was detected was 3.3 µg/L (the range was 2.3 µg/L to 4.6 µg/L). All results were below the MCL of 10 µg/L.

Table 2: Wells Where Arsenic Was Detected Above the PHG (2022 to 2024)

Well Number	Arsenic Concentration (µg/L)			Maximum Water Production (gpm)	SBA Ion-Exchange Treatment Cost	
	2022	2023	2024		Capital	Annual O&M
93		3.2		478	$2,555,577	$321,809
94			2.9	796	$3,436,944	$349,032
107		3.6		942	$3,448,196	$356,809
120		2.4		950	$3,685,906	$367,780
122		2.6		650	$2,883,029	$342,318
129	2.4	2.6		698	$2,694,466	$335,910
131		2.4		514	$2,693,176	$333,853
133		4.6		1,200	$3,440,087	$354,043
137		3.2		677	$3,557,282	$362,024
138		2.7		891	$3,445,488	$346,711
139		3.8		675	$3,443,565	$349,424
143		2.3		730	$2,885,864	$346,664
153A		4.3	4.4	1,017	$2,690,992	$330,372
155		2.5		752	$3,597,781	$370,356
158		3.6		864	$3,689,736	$363,186

gpm = gallons per minute, O&M = operation and maintenance costs, µg/L = micrograms per liter.

The total estimated capital cost to provide SBA ion-exchange treatment for all the wells presented in Table 2, at their respective maximum water production, is $48,138,089 (the total annual O&M costs are estimated to be $5,230,290/year)[1]. Ion-exchange treatment produces a concentrated waste brine that the City of Sacramento would need to dispose. The estimated costs assume that the waste brine is discharged to the sewer. Capital and O&M costs were estimated with the goal of achieving the

[1]Attachment 4 presents a description of the models and methodology used to estimate capital and O&M costs presented in this PHG Report.

arsenic 0.004 μg/L PHG. There is no information available, however, to indicate that ion exchange treatment could in fact reduce arsenic concentrations to such a low level. In addition, the detection limit for purposes of reporting (DLR) as determined by DDW is 2 μg/L and there is no analytical method available that can reliably measure arsenic in drinking water down to 0.004 μg/L.

Hexavalent chromium. The PHG for hexavalent chromium is 0.02 μg/L. The MCL for hexavalent chromium is 10 μg/L. The DLR for hexavalent chromium is 0.1 μg/L. The health risk category associated with hexavalent chromium is carcinogenicity. At the PHG, the theoretical cancer risk is 1×10^{-6}. This means the 70-year lifetime cancer risk for drinking water at the PHG is 1 excess case of cancer per million people exposed. At the state MCL of 10 μg/L, the theoretical cancer risk is 5×10^{-4}. This means the 70-year lifetime cancer risk for drinking water at the MCL is 5 excess cases per 10,000 people exposed.

The California DDW has identified the following treatment technologies as Best Available Technology for reducing hexavalent chromium levels in drinking water.

- Reduction/Coagulation/Filtration
- Ion Exchange
- Reverse Osmosis

From the above list of Best Available Technology, the cost evaluation was conducted using ion exchange (strong base anion (SBA) resin).

All samples that exceeded the hexavalent chromium PHG during 2022 through 2024 were in groundwater wells. Table 3 presents the 14 wells where detections exceeded the hexavalent chromium PHG during 2022 through 2024. The water quality data presented in Table 3 indicates the average level of hexavalent chromium detected above the PHG was 5.6 μg/L, with a range of 1 μg/L to 7.6 μg/L. All results were below the MCL of 10 μg/L.

The total estimated capital cost to provide SBA ion-exchange treatment for all the wells presented in Table 3 at their respective maximum well water production during 2022 through 2024, is $44,704,524 (the total annual O&M costs are estimated to be $4,880,867/year)[2]. Note that all 14 of the wells and the individual treatment costs presented in Table 3 are also listed in Table 2. The same treatment technology, SBA, would be used for both arsenic and hexavalent chromium. Therefore the total costs for arsenic and hexavalent chromium will be based on the total costs presented in Table 2. Ion-exchange treatment produces a concentrated waste brine that the City of Sacramento would need to dispose. The estimated costs assume that the waste brine is discharged to the sewer. Capital and O&M costs were estimated with the goal of achieving the hexavalent chromium 0.02 μg/L PHG. The DLR as determined by DDW is 0.1 μg/L.

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[2]Attachment 4 presents a description of the models and methodology used to estimate capital and O&M costs presented in this PHG Report.

Table 3: Wells Where Hexavalent Chromium Was Detected Above the PHG (2022 to 2024)

Well Number	Hexavalent Chromium Concentration (µg/L)			Maximum Water Production (gpm)	SBA Ion-Exchange Treatment Cost	
	2022	2023	2024		Capital	Annual O&M
93		5.8		478	$2,555,577	$321,809
94	6.5		5.9	796	$3,436,944	$349,032
107		6.9		942	$3,448,196	$356,809
120		3.0		950	$3,685,906	$367,780
122		3.9		650	$2,883,029	$342,318
129	7	7		698	$2,694,466	$335,910
131		6.9		514	$2,693,176	$333,853
133		7.6		1,200	$3,440,087	$354,043
137		6.7		677	$3,557,282	$362,024
138		7.6		891	$3,445,488	$346,711
143		4.1		730	$2,885,864	$346,664
153A		6.6		1,017	$2,690,992	$330,372
155		4		752	$3,597,781	$370,356
158		1		864	$3,689,736	$363,186

gpm = gallons per minute, O&M = operation and maintenance costs

RADIONUCLIDES

During 2022 to 2024, two naturally occurring radionuclides were detected in groundwater wells: uranium and gross alpha. The following sections present an evaluation of the health risks and treatment costs for reducing the levels of gross alpha and uranium.

Gross Alpha. OEHHA has not established a PHG for gross alpha activity because the results are used as a screening tool for naturally occurring radionuclides (i.e., gross alpha does not represent a specific constituent). The federal MCLG for gross alpha is 0 pCi/L due to the classification of gross alpha radioactivity as carcinogenic. The cancer health risk at 0 pCi/L is zero. The MCL for gross alpha activity is 15 picocuries per liter (pCi/L) and the DLR is 3 pCi/L. Gross alpha measurements can indicate the presence of a number of alpha emitting radionuclides. OEHHA indicates that depending upon which isotopes are present, the numerical cancer health risk at the MCL of 15 pCi/L could be 1 × 10^{-3}. That means for a 70-year lifetime exposure at the MCL, there could be a theoretical risk of one excess case of cancer per 1,000 people exposed.

During 2022 through 2024, three wells had a gross alpha detection above the MCLG. Table 4 presents the gross alpha range of 3.3 to 10 pCi/L, below the MCL of 15 pCi/L, for Wells 93, 94, and 129. DDW has identified reverse osmosis as the Best Available Technology for reducing gross alpha levels in drinking water. The cost evaluation was conducted using reverse osmosis given that no other technology has been identified as Best Available Technology. The total estimated capital cost for reverse osmosis treatment at Wells 93, 94 and 114 would be $18,608,946. The total annual O&M costs would be $1,934,205/year. A brief description of the estimated cost procedure for Wells 93, 94 and 129 is presented in Attachment 4 of this document. Reverse osmosis treatment produces a concentrated waste that the City of Sacramento would need to dispose. The estimated costs assume that the reverse osmosis concentrate is discharged to the sewer and do not include the costs to replace the lost water.

Table 4: Wells Where Gross Alpha Was Detected Above the PHG (2022 to 2024)

Well Number	Gross Alpha Concentration (pCi/L)			Maximum Water Production (gpm)	Reverse Osmosis Treatment Cost	
	2022	2023	2024		Capital	Annual O&M
93		3.3		679	$7,234,325	$768,089
94	5.8			460	$5,286,997	$536,800
129			10	541	$6,087,624	$629,316

gpm = gallons per minute; O&M = operation and maintenance costs

***Uranium**.* The PHG for uranium is 0.43 pCi/L. The PHG is based on the classification of uranium as a carcinogen. The cancer health risk at 0.43 pCi/L is $1X10^{-6}$. The MCL for uranium is 20 pCi/L and the DLR is 1 pCi/L. The theoretical cancer risk at the MCL is $5x10^{-5}$ That means for a 70-year lifetime exposure at the MCL, there could be a theoretical risk of five extra cases of cancer per 10,000 people exposed.

During 2022 through 2024, the same three wells that detected gross alpha above the PHG also had a uranium detection above the PHG. Table 5 presents the uranium results for Wells 93, 94 and 129. The average uranium result was 3 pCi/L with a range of 1.4 to 4.5 pCi/L. Results were well below the MCL of 20 pCi/L.

DDW has identified the following treatments as Best Available Technology for reducing the levels of uranium in drinking water:

- Ion exchange
- Reverse osmosis
- Lime softening
- Coagulation/filtration

The cost evaluation was conducted using Reverse Osmosis. The total estimated capital cost for reverse osmosis treatment at Wells 93, 94 and 129 would be $18,608,946 (the total annual O&M costs would be $1,934,205/year). A brief description of the estimated cost procedure for Wells 93, 94 and 129 is presented in Attachment 4 of this document. Reverse osmosis treatment produces a concentrated waste that the City of Sacramento would need to dispose. The estimated costs assume that the reverse osmosis concentrate is discharged to the sewer and do not include the costs to replace the lost water.

Table 5: Wells Where Uranium Was Detected Above the PHG (2022 to 2024)

Well Number	Uranium Concentration (pCi/L)			Maximum Water Production (gpm)	Reverse Osmosis Treatment Cost	
	2022	2023	2024		Capital	Annual O&M
93		3.9		679	$7,234,325	$768,089
94	4.5			460	$5,286,997	$536,800
129	1.4			541	$6,087,624	$629,316

gpm = gallons per minute; O&M = operation and maintenance costs

ORGANIC CHEMICALS

During 2022 to 2024 two PFAS, PFOA and PFOS, were detected above their PHGs. California has established a PHG for both constituents and the federal EPA adopted MCLs for both PFOA and PFOS at 4 nanograms per liter (ng/L). The PHG for PFOA is 0.07 ng/L and the PHG for PFOS is 1 ng/L. The cancer risk at the PHG is 1×10^{-6} for both PFOA and PFOS. The cancer risk at the PFOA MCL is 6×10^{-5}, six theoretical cases of cancer per 100,000 people exposed, and the cancer risk for PFOS at the MCL is 4×10^{-6}, four theoretical cases of cancer per million people exposed, for a 70 year lifetime.

EPA identified the following treatments as Best Available Technology for reducing the levels of PFOA and PFOS in drinking water:

- granular activated carbon (GAC),
- reverse osmosis, and
- ion exchange (IX)

PFOA was detected in Well 133 and PFOS was detected in Wells 133, 139 and 158. Table 6 presents the PFOA result for Well 133. Table 7 presents the results for PFOS detections. Cost estimates for reducing both PFOA and PFOS were determined using IX. Tables 6 and 7 present the calculated cost estimates for all three wells. The total capital cost to provide PFAS treatment for the three wells in Table 7 is estimated to be $13,000,000, with an estimated annual O&M cost of $807,000.

Table 6: Well Where PFOA Was Detected Above the PHG (2022 to 2024)

Well Number	PFOA Concentration (ng/L)			Maximum Water Production (gpm)	IX Treatment Cost	
	2022	2023	2024		Capital	Annual O&M
133		4.3		1,200	$5,100,000	$321,000

gpm = gallons per minute, ng/L = nanograms per liter

Table 7: Wells Where PFOS Was Detected Above the PHG (2022 to 2024)

Well Number	PFOS Concentration (ng/L)			Maximum Water Production (gpm)	IX Treatment Cost	
	2022	2023	2024		Capital	Annual O&M
133		8.9		1,200	$5,100,000	$321,000
139	8.8	7.7		675	$3,500,000	$223,000
158	4.8	5.3		864	$4,400,000	$263,000

gpm = gallons per minute, ng/L = nanograms per liter

SUMMARY OF TOTAL COSTS AND POTENTIAL IMPACT ON CUSTOMER BILLS

As required, treatment costs were estimated for regulated constituents that were detected above the PHG but below the MCL. For arsenic and hexavalent chromium, ion exchange costs were evaluated for both constituents, given that ion-exchange is one of the Best Available Technologies for both constituents. The type of ion-exchange resin typically used for arsenic and hexavalent chromium treatment is SBA resin. For gross alpha and uranium, costs were estimated using reverse osmosis. Table 8 presents the capital costs and annual O&M costs for each well evaluated in this PHG Report. For PFAS capital costs and annual O&M costs were estimated using IX treatment. Table 8 also presents the annualized total cost for each well (this is the sum of the annualized capital cost plus the annual O&M costs). Based on the 2022 through 2024 data set, the total capital costs to install ion-exchange and reverse osmosis are estimated to be $60,496,660 and the annual O&M cost is estimated to be $5,897,972. The total annualized capital cost plus the annual O&M costs would be approximately $10,511,541. The estimated increase in each City of Sacramento customer's water bill would be approximately $72 per year or $6 per month.

Table 8: Summary of Capital and O&M Costs (2022 – 2024)

Well Number	Constituents Detected	Constituent Driving the Cost (& Treatment)	Cost of Treatment (2024 Dollars)		
			Capital Cost	Annual O&M	Annualized Total Cost*
93	Arsenic, CrVI, Rads	Rads (RO)	$7,234,325	$768,089	$1,348,589
94	Arsenic, CrVI, Rads	Rads (RO)	$5,286,997	$536,680	$961,042
107	Arsenic, CrVI	Arsenic, CrVI (IX - SBA)	$3,448,196	$356,809	$633,501
120	Arsenic, CrVI	Arsenic, CrVI (IX – SBA)	$3,685,906	$367,780	$663,546
122	Arsenic, CrVI	Arsenic, CrVI (IX - SBA)	$2,883,029	$342,318	$573,659
129	Arsenic, CrVI, Rads	Rads (RO)	$6,087,624	$629,316	$1,117,802
131	Arsenic, CrVI	Arsenic, CrVI (IX - SBA)	$2,693,176	$333,853	$549,960
133	Arsenic, CrVI, PFAS	PFAS (IX)	$5,100,000	$321,000	$610,000
137	Arsenic, CrVI	Arsenic, CrVI (IX - SBA)	$3,557,282	$362,024	$647,469
138	Arsenic, CrVI	Arsenic, CrVI (IX - SBA)	$3,445,488	$346,711	$622,383
139	Arsenic, PFAS	PFAS (IX)	$3,500,000	$223,000	$451,000
143	Arsenic, CrVI	Arsenic (IX – SBA)	$2,885,864	$346,664	$578,233
153A	Arsenic, CrVI	Arsenic, CrVI (IX - SBA)	$2,690,992	$330,372	$546,304
155	Arsenic, CrVI	Arsenic, CrVI (IX - SBA)	$3,597,781	$370,356	$659,051
158	Arsenic, CrVI, PFAS	PFAS (IX)	$4,400,000	$263,000	$549,000
		Total=	$60,496,660	$5,897,972	$10,511,541

**Annualized total cost is the sum of the annual O&M cost and the amortized capital annual cost. The amortized capital annual cost was calculated assuming a 20-year amortization period and an interest rate of 5%.*
IX = ion-exchange, SBA = strong base anion, RO = reverse osmosis.

RECOMMENDATIONS

The drinking water quality of the City of Sacramento Department of Utilities meets all State of California and USEPA drinking water standards set to protect public health. To further reduce the levels of the constituents identified in this report that are already below the health based MCLs established to provide "safe drinking water," would require additional costly treatment processes and would increase the annual customer water bills. The health protection benefits of these potential reductions are unclear and may not be quantifiable. Therefore, no action is proposed.

ATTACHMENTS

No. 1 Excerpt from California Health & Safety Code: Section 116470 (b)

No. 2 Table of California Regulated Constituents with MCLs and PHGs

No. 3 Health Risk Information for Public Health Goal Exceedance Reports. Prepared by the Office of Environmental Health Hazard Assessment. February 2025

No. 4 Description of Cost Estimating Methodology for this PHG Report

No.5 City of Sacramento – Department of Utilities 2022, 2023 and 2024 Consumer Confidence Reports.

ATTACHMENT 1

EXCERPT FROM CALIFRONIA HEALTH & SAFETY CODE
SECTION 116470 (b)

116470. (b) On or before July 1, 1998, and every three years thereafter, public water systems serving more than 10,000 service connections that detect one or more contaminants in drinking water that exceed the applicable public health goal, shall prepare a brief written report in plain language that does all of the following:
(1) Identifies each contaminant detected in drinking water that exceeds the applicable public health goal.
(2) Discloses the numerical public health risk, determined by the office, associated with the maximum contaminant level for each contaminant identified in paragraph (1) and the numerical public health risk determined by the office associated with the public health goal for that contaminant.
(3) Identifies the category of risk to public health, including, but not limited to, carcinogenic, mutagenic, teratogenic, and acute toxicity, associated with exposure to the contaminant in drinking water, and includes a brief plainly worded description of these terms.
(4) Describes the best available technology, if any is then available on a commercial basis, to remove the contaminant or reduce the concentration of the contaminant. The public water system may, solely at its own discretion, briefly describe actions that have been taken on its own, or by other entities, to prevent the introduction of the contaminant into drinking water supplies.
(5) Estimates the aggregate cost and the cost per customer of utilizing the technology described in paragraph (4), if any, to reduce the concentration of that contaminant in drinking water to a level at or below the public health goal.
(6) Briefly describes what action, if any, the local water purveyor intends to take to reduce the concentration of the contaminant in public drinking water supplies and the basis for that decision.
(c) Public water systems required to prepare a report pursuant to subdivision (b) shall hold a public hearing for the purpose of accepting and responding to public comment on the report. Public water systems may hold the public hearing as part of any regularly scheduled meeting.
(d) The department shall not require a public water system to take any action to reduce or eliminate any exceedance of a public health goal.
(e) Enforcement of this section does not require the department to amend a public water system's operating permit.
(f) Pending adoption of a public health goal by the Office of Environmental Health Hazard Assessment pursuant to subdivision (c) of Section 116365, and in lieu thereof, public water systems shall use the national maximum contaminant level goal adopted by the United States Environmental Protection Agency for the corresponding contaminant for purposes of complying with the notice and hearing requirements of this section.

ATTACHMENT 2

TABLE OF CALIFORNIA REGULATED CONSTITUENTS WITH MCLs AND PHGs

MCLs, DLRs, and PHGs for Regulated Drinking Water Contaminants

Updated November 2024

The following tables include California's maximum contaminant levels (MCLs), detection limits for purposes of reporting (DLRs), public health goals (PHGs) from the Office of Environmental Health Hazard Assessment (OEHHA). For comparison, Federal MCLs and Maximum Contaminant Level Goals (MCLGs) from the U.S. EPA are also displayed. Previous MCLs that are no longer effective are shown in *italics*. Regulatory citations refer to Title 22 of the California Code of Regulations (22 CCR) and Title 40 of the Code of Federal Regulations (40 CFR).

This document refers to several units of measurement commonly used in assessing water quality. Concentrations of substances in drinking water are typically expressed in milligrams per liter (mg/L), micrograms per liter (µg/L), nanograms per liter (ng/L), and picocuries per liter (pCi/L). These units help quantify the presence of various chemicals, metals, or radioactive materials. For reference, 1 mg/L equals 1,000 µg/L, and 1 µg/L equals 1,000 ng/L, providing a clear scale for understanding the quantities discussed. Picocuries per liter (pCi/L) measure radioactive material, where 1 pCi/L represents a trillionth of a curie, a standard unit for radioactivity.

Inorganic Chemicals

The information in the following table can be found in 22 CCR §64431 (California MCLs), 22 CCR §64432 (California DLRs), OEHHA's website (California PHGs), 40 CFR §141.23 (U.S. EPA MCLs), and 40 CFR §141.51 (U.S. EPA MCLGs). The values in this table are in **units of micrograms per liter (µg/L)** unless otherwise stated.

Inorganic Chemicals	California					U.S. EPA		
	MCL	MCL Effective Date	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
Aluminum	1,000	1989-02-25	50	600	2001	--	--	--
Antimony	6	1994-09-08	6	1	2016	6	1994-01-17	6
Arsenic	10 *50*	2008-11-28 *1977*	2	0.004	2004	10 *50*	2006-01-23 *1977-06-24*	zero
Asbestos[1]	7	1994-09-08	0.2	7	2003	7	1992-07-30	7

[1] Asbestos units are in million fibers per liter (MFL); for fibers >10 microns long.

Inorganic Chemicals	California					U.S. EPA		
	MCL	MCL Effective Date	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
Barium	1,000	1977	100	2,000	2003	2,000 *1,000*	1992-07-30 *1977-06-24*	2000
Beryllium	4	1994-09-08	1	1	2003	4	1994-01-17	4
Cadmium	5 *10*	1994-09-08 *1977*	1	0.04	2006	5 *10*	1992-07-30 *1977-06-24*	5
Chromium, Hexavalent	10	2024-10-01	0.1	0.02	2011	--	--	--
Chromium, Total	50	1977	10	none[2]	--	100 *50*	1992-07-30 *1997-06-24*	100
Cyanide	150 *200*	2003-06-12 *1994-09-08*	100	150	1997	200	1994-01-17	200
Fluoride	2,000	1998-04	100	1,000	1997	4,000	1987-10-02	4000
Mercury (inorganic)	2	1977	1	1.2	1999	2	1977-06-24	2
Nickel	100	1994-09-08	10	12	2001	--	Remanded	--
Nitrate (as nitrogen, N)	10,000 as N	1977	400	10,000 as N[3]	2018	10,000	1977-06-24	10 mg/L
Nitrite (as N)	1,000 as N	1994-09-08	400	1,000 as N	2018	1,000	1992-07-30	1 mg/L
Nitrate + Nitrite (as N)	10,000 as N	1994-09-08	--	10,000 as N	2018	10,000	1992-07-30	10,000
Perchlorate	6	2007-10-18	1	1	2015	--	--	--
Selenium	50 *10*	1994-09-08 *1977*	5	30	2010	50 *10*	1992-07-30 *1977-06-24*	50
Thallium	2	1994-09-08	1	0.1	1999	2	1994-01-17	0.5

[2] In November 2001, OEHHA withdrew the 0.0025 mg/L PHG adopted in 1999.

[3] The PHG for nitrate can also be expressed as 45 mg/L as NO_3.

Volatile Organic Chemicals (VOCs)

The information in the following table can be found in 22 CCR §64444 (California MCLs), 22 CCR §64445.1 (California DLRs), OEHHA's website (California PHGs), 40 CFR §141.61 (U.S. EPA MCLs), and 40 CFR §141.50 (U.S. EPA MCLGs). The values in this table are in **units of micrograms per liter (µg/L)**.

Volatile Organic Chemicals (VOCs)	California					U.S. EPA		
	MCL	MCL Effective Date	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
Benzene	1	1989-02-25	0.5	0.15	2001	5	1989-01-09	zero
Carbon tetrachloride	0.5	1989-04-05	0.5	0.1	2000	5	1989-01-09	zero
1,2-Dichlorobenzene	600	1994-09-08	0.5	600	1997	600	1992-07-30	600
1,4-Dichlorobenzene (p-DCB)	5	1989-04-05	0.5	6	1997	75	1989-01-09	75
1,1-Dichloroethane (1,1-DCA)	5	1990-06-24	0.5	3	2003	--	--	--
1,2-Dichloroethane (1,2-DCA)	0.5	1989-04-05	0.5	0.4	1999	5	1989-01-09	zero
1,1-Dichloroethylene (1,1-DCE)	6	1989-02-25	0.5	10	1999	7	1989-01-09	7
cis-1,2-Dichloroethylene	6	1994-09-08	0.5	13	2018	70	1992-07-30	70
trans-1,2-Dichloroethylene	10	1994-09-08	0.5	50	2018	100	1992-07-30	100
Dichloromethane (Methylene chloride)	5	1994-09-08	0.5	4	2000	5	1994-01-17	zero
1,2-Dichloropropane	5	1990-06-24	0.5	0.5	1999	5	1992-07-30	zero
1,3-Dichloropropene	0.5	1989-02-25	0.5	0.2	1999	--	--	--
Ethylbenzene	300 *700* *680*	2003-06-12 *1994-09-08* *1989-02-25*	0.5	300	1997	700	1992-07-30	700
Methyl tertiary butyl ether (MTBE)	13	2000-05-17	3	13	1999	--	--	--
Monochlorobenzene	70 *30*	1994-09-08 *1989-02-25*	0.5	70	2014	100	1992-07-30	100
Styrene	100	1994-09-08	0.5	0.5	2010	100	1992-07-30	100
1,1,2,2-Tetrachloroethane	1	1989-02-25	0.5	0.1	2003	--	--	--
Tetrachloroethylene (PCE)	5	1989-05	0.5	0.06	2001	5	1992-07-30	zero
Toluene	150	1994-09-08	0.5	150	1999	1,000	1992-07-30	1,000

Volatile Organic Chemicals (VOCs)	California					U.S. EPA		
	MCL	MCL Effective Date	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
1,2,4-Trichlorobenzene	5 *70*	2003-06-12 *1994-09-08*	0.5	5	1999	70	1994-01-17	70
1,1,1-Trichloroethane (1,1,1-TCA)	200	1989-02-25	0.5	1000	2006	200	1989-01-09	200
1,1,2-Trichloroethane (1,1,2-TCA)	5 *32*	1994-09-08 *1989-04-05*	0.5	0.3	2006	5	1994-01-17	3
Trichloroethylene (TCE)	5	1989-02-25	0.5	1.7	2009	5	1989-01-09	zero
Trichlorofluoromethane (Freon 11)	150	1990-06-24	5	1,300	2014	--	--	--
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1,200	1990-06-24	10	4,000	1997	--	--	--
Vinyl chloride	0.5	1989-04-05	0.5	0.05	2000	2	1989-01-09	zero
Xylenes	1,750	1989-02-25	0.5	1,800	1997	10,000	1992-07-30	10,000

Synthetic Organic Chemicals (SOCs)

The information in the following table can be found in 22 CCR §64444 (California MCLs), 22 CCR §64445.1 (California DLRs), OEHHA's website (California PHGs), 40 CFR §141.61 (U.S. EPA MCLs), and 40 CFR §141.50 (U.S. EPA MCLGs). The values in this table are in **units of micrograms per liter (μg/L)**.

Synthetic Organic Chemicals (SOCs)	California					U.S. EPA		
	MCL	MCL Effective Date	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
Alachlor	2	1994-09-08	1	4	1997	2	1992-07-30	zero
Atrazine	1 *3*	2003-06-12 *1989-04-05*	0.5	0.15	1999	3	1992-07-30	3
Bentazon	18	1989-04-05	2	200	1999	--	--	--
Benzo(a)pyrene	0.2	1994-09-08	0.1	0.007	2010	0.2	1994-01-17	zero
Carbofuran	18	1990-06-24	5	0.7	2016	40	1992-07-30	40
Chlordane	0.1	1990-06-24	0.1	0.03	1997	2	1992-07-30	zero

Synthetic Organic Chemicals (SOCs)	California					U.S. EPA		
	MCL	**MCL Effective Date**	**DLR**	**PHG**	**PHG Date**	**MCL**	**MCL Effective Date**	**MCLG**
Dalapon	200	1994-09-08	10	790	1997	200	1994-01-17	200
1,2-Dibromo-3-chloropropane (DBCP)	0.2 *0.1*	1991-05-03 *1989-07-26*	0.01	0.003	2020	0.2	1992-07-30	zero
2,4-Dichlorophenoxyacetic acid (2,4-D)	70 *100*	1994-09-08 *1977*	10	20	2009	70 *100*	1992-07-30 *1977-06-24*	70
Di(2-ethylhexyl)adipate	400	1994-09-08	5	200	2003	400	1994-01-17	400
Di(2-ethylhexyl)phthalate (DEHP)	4	1990-06-24	3	12	1997	6	1994-01-17	zero
Dinoseb	7	1994-09-08	2	14	1997	7	1994-01-17	7
Diquat	20	1994-09-08	4	6	2016	20	1994-01-17	20
Endothal	100	1994-09-08	45	94	2014	100	1994-01-17	100
Endrin	2 *0.2*	1994-09-08 *1977*	0.1	0.3	2016	2 *0.2*	1994-01-17 *1977-06-24*	2
Ethylene dibromide (EDB)	0.05 *0.02*	1994-09-08 *1989-02-25*	0.02	0.01	2003	0.05	1992-07-30	zero
Glyphosate	700	1990-06-24	25	900	2007	700	1994-01-17	700
Heptachlor	0.01	1990-06-24	0.01	0.008	1999	0.4	1992-07-30	zero
Heptachlor epoxide	0.01	1990-06-24	0.01	0.006	1999	0.2	1992-07-30	zero
Hexachlorobenzene	1	1994-09-08	0.5	0.03	2003	1	1994-01-17	zero
Hexachlorocyclopentadiene	50	1994-09-08	1	2	2014	50	1994-01-17	50
Lindane	0.2 *4*	1994-09-08 *1977*	0.2	0.032	1999	0.2 4	1992-07-30 1977	0.2
Methoxychlor	30 *40* *100*	2003-06-12 *1994-09-08* *1977*	10	0.09	2010	40 *100*	1992-07-30 *1977-06-24*	40
Molinate	20	1989-04-05	2	1	2008	--	--	--
Oxamyl	50 *200*	2003-06-12 *1994-09-08*	20	26	2009	200	1994-01-17	200

Synthetic Organic Chemicals (SOCs)	California					U.S. EPA		
	MCL	MCL Effective Date	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
Pentachlorophenol	1	1994-09-08	0.2	0.3	2009	1	1992-07-30	zero
Picloram	500	1994-09-08	1	166	2016	500	1994-01-17	500
Polychlorinated biphenyls (PCBs)	0.5	1994-09-08	0.5	0.09	2007	0.5	1992-07-30	zero
Simazine	4 *10*	1994-09-08 *1989-04-05*	1	4	2001	4	1994-01-17	4
Thiobencarb	70	1989-04-05	1	42	2016	--	--	--
Toxaphene	3 *5*	1994-09-08 *1977*	1	0.03	2003	3 *5*	1992-07-30 *1977-06-24*	zero
1,2,3-Trichloropropane	0.005	2017-12-14	0.005	0.0007	2009	--	--	--
2,3,7,8-TCDD (dioxin)	0.00003	1994-09-08	5×10^{-6}	5×10^{-8}	2010	0.00003	1994-01-17	zero
2,4,5-TP (Silvex)	50 *10*	1994-09-08 *1977*	1	3	2014	50 *10*	1992-07-30 *1977-06-24*	50

Disinfectant Residuals

Standards for disinfectant residuals are called “Maximum Residual Disinfectant Levels” (MRDLs) instead of MCLs. Similarly, goals are called “Maximum Residual Disinfectant Level Goals” (MRDLGs). The information in the following table can be found in 22 CCR §64533.5 (California MRDLs), 40 CFR §141.65 (U.S. EPA MRDLs), and 40 CFR §141.54 (U.S. EPA MRDLGs). The values in this table are in **units of milligrams per liter (mg/L)**.

Disinfectant Residuals	California					U.S. EPA		
	MRDL	MRDL Effective Date	DLR	PHG	PHG Date	MRDL	MRDL Effective Date	MRDLG
Chlorine	4.0 (as Cl_2)	2006-06-17	--	--	--	4.0	1999-02-16	4
Chloramines	4.0 (as Cl_2)	2006-06-17	--	--	--	4.0	1999-02-16	4
Chlorine dioxide	0.8 (as ClO_2)	2006-06-17	--	--	--	0.8	1999-02-16	0.8

Disinfection Byproducts

The information in the following table can be found in 22 CCR §64533 (California MCLs and DLRs), OEHHA's website (California PHGs), 40 CFR §141.64 (U.S. EPA MCLs), and 40 CFR §141.53 (U.S. EPA MCLGs). The values in this table are in **units of micrograms per liter (µg/L)**.

Disinfection Byproducts	California					U.S. EPA		
	MCL	MCL Effective Date	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
Total Trihalomethanes	80 *100*	2006-06-17 *1983-03-14*	--	--	--	80 *100*	2002-01-01 *1983-11-29*	--
Bromodichloromethane	--	--	1	0.06	2020	--	--	zero
Bromoform	--	--	1	0.5	2020	--	--	zero
Chloroform	--	--	1	0.4	2020	--	--	70
Dibromochloromethane	--	--	1	0.1	2020	--	--	60
Haloacetic Acids (five) (HAA5)	60	2006-06-17	--	--	--	60	2002-01-01	--
Monochloroacetic Acid	--	--	2	53	2022	--	--	70
Dichloroacetic Acid	--	--	1	0.2	2022	--	--	zero
Trichloroacetic Acid	--	--	1	0.1	2022	--	--	20
Monobromoacetic Acid	--	--	1	25	2022	--	--	--
Dibromoacetic Acid	--	--	1	0.03	2022	--	--	--
Bromate	10	2006-06-17	5[4]	0.1	2009	10	2002-01-01	zero
Chlorite	1000	2006-06-17	20	50	2009	1000	2002-01-01	800

Radionuclides

The information in the following table can be found in 22 CCR §64442 (California MCLs and DLRs), 22 CCR §64443 (California MCLs and DLRs), OEHHA's website (California PHGs), 40 CFR §141.66 (U.S. EPA MCLs), and 40 CFR §141.55 (U.S. EPA MCLGs). The values in this table are in **units of picocuries per liter (pCi/L)** unless otherwise stated.

[4] The DLR for bromate is 0.0010 mg/L for analysis performed using EPA Methods 317.0 Revision 2.0, 321.8, or 326.0.

Radionuclides	California					U.S. EPA		
	MCL	MCL Effective Date	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
Gross alpha particle activity[5]	15[6] *15*	2006-06-11 *1977*	3	none[7]	--	15	1977-06-24	zero
Beta/photon emitters[8]	4 mrem/yr *50*	2006-06-11 *1977*	4	none[7]	--	4 mrem/yr	1977-06-24	zero
Radium-226	--	--	1	0.05	2006	--	--	--
Radium-228	--	--	1	0.019	2006	--	--	--
Radium-226 + Radium-228	5[6] *5*	2006-06-11 *1977*	--	--	--	5	1977-06-24	zero
Strontium-90	8[9] *8*	2006-06-11 *1977*	2	0.35	2006	4 mrem/yr[10] *8*	2003-12-08 *1977-06-24*	--
Tritium	20,000[9] *20,000*	2006-06-11 *1977*	1,000	400	2006	4 mrem/yr[10] *20,000*	2003-12-08 *1977-06-24*	--
Uranium	20[6] *20*	2006-06-11 *1989-01-01*	1	0.43	2001	30 µg/L[11]	2003-12-08	zero

[5] Excludes alpha particle activity from radon and uranium.
[6] Revised MCL applies to both community (CWS) and nontransient noncommunity water systems (NTNCWS); previous MCL applied only to CWS.
[7] OEHHA concluded in 2003 that it would not be practical to develop a PHG (for gross alpha particle activity, for gross beta particle/photon emitters).
[8] Beta/photon emitters MCLs are in units of millirems per year (mrem/yr) annual dose equivalent to the total body or any internal organ. The DLR is in units of pCi/L of gross beta particle activity.
[9] Revised MCL applies to all CWS and NTNCWS; previous MCL applied only to water systems with at least 30,000 service connections that used surface water.
[10] U.S. EPA does not have specific MCLs for strontium-90 or tritium; both are regulated under the beta/photon emitters MCL.
[11] U.S. EPA MCL of 30 µg/L is equivalent to 20.1 pCi/L (unit conversion using natural uranium specific activity of 0.67 pCi/µg).

Copper and Lead

Standards for lead and copper are called "Action Levels" instead of MCLs. If a system exceeds an Action Level, it must take certain actions such as additional monitoring, corrosion control studies and treatment, and for lead, a public education program. The information in the following table can be found in 22 CCR §64678 (California Action Levels and DLRs), OEHHA's website (California PHGs), 40 CFR §141.80 (U.S. EPA Action Levels), and 40 CFR §141.51 (U.S. EPA MCLGs). The values in this table are in **units of micrograms per liter (µg/L)**.

Contaminants	California					U.S. EPA		
	Action Level	Action Level Effective Date	DLR	PHG	PHG Date	Action Level	Action Level Effective Date	MCLG
Copper	1,300	1995-12-11	50	300	2008	1,300	1991-11-06	1,300
Lead	15 *50*	1995-12-11 *1977*	5	0.2	2009	15 *50*	1991-11-06 *1977-06-24*	zero

Treatment Techniques

A treatment technique is a required process intended to reduce contaminant levels in drinking water, safeguarding public health. Rather than setting specific limits on contaminant concentrations, the treatment techniques below focus on the processes used to ensure protection from contaminants:

- **Coliform**: If a water system finds coliform bacteria (which indicate the presence of harmful microorganisms), they must assess and fix any issues in actions called Level 1 and Level 2 assessments.
- **Viruses**: Systems must treat groundwater to remove or inactivate at least 99.99% of viruses using methods like disinfection. They must monitor and correct any issues within hours if they fail to meet these standards.
- **Cryptosporidium**: For surface water or groundwater influenced by surface water, system must treat to remove or inactivate a parasite called Cryptosporidium, which involves special filtration and disinfection processes.
- **Disinfection Byproducts**: Systems have several options for treatment techniques to reduce the levels of disinfection byproducts (total trihalomethanes (TTHMs), haloacetic acids (HAA5), bromate, and chlorite).
- **Acrylamide and Epichlorohydrin**: Water systems that use certain chemicals in the treatment process must certify that the chemical levels are kept below safe limits.

Secondary Standards

Secondary Maximum Contaminant Levels (SMCLs) provide water quality standards related to aesthetic aspects of drinking water, such as taste, odor, and appearance. Though not directly linked to health risks, SMCLs play a crucial role in maintaining consumer confidence and satisfaction. The information in the following two tables can be found in 22 CCR §64449 (California SMCLs) and 40 CFR §143.3 (U.S. EPA SMCLs). The values in this table are in **units of micrograms per liter (µg/L)** unless otherwise stated.

Chemical	**California**				**U.S. EPA**	
	SMCL			**SMCL Effective Date**	**SMCL**	**SMCL Effective Date**
Aluminum	200			1994-09-08	50 to 200	1992-07-30
Color	15 Units			1977	15 Units	1981-01-19
Copper	1,000			1977	1,000[12] 1,000	1992-07-30 1981-01-19
Corrosivity	--			Removed	Non-corrosive	1981-01-19
Fluoride	See 22 CCR §64433.2			1998-04-22	2,000	1986-05-02
Foaming Agents (MBAS)	500			1977	500	1981-01-19
Iron	300			1977	300	1981-01-19
Manganese	50			1977	50	1981-01-19
Methyl-*tert*-butyl ether (MTBE)	5			1999-01-07	--	--
Odor -Threshold	3 Units			1977	3 Units	1981-01-19
pH	--			--	6.5 to 8.5	1981-01-19
Silver	100			--	100	1992-07-30
Thiobencarb	1			1989-04-05	--	--
Turbidity	5 Units			1977	--	--
Zinc	5,000			1977	5,000	1981-01-19
	Recommended	**Upper**	**Short Term**			
Total Dissolved Solids (mg/L) *or*	500	1,000	1,500	--	500	1981-01-19
Specific Conductance (µS/cm[9])	900	1,600	2,200	--	--	--
Chloride (mg/L)	250	500	600	--	250	1981-01-19
Sulfate (mg/L)	250	500	600	--	250	1981-01-19

[12] The updated SMCL for copper increased the number of significant figures from 1 to 2.

Chemicals soon to be regulated in drinking water in California

The information in the following table can be found in OEHHA's website (California PHGs), 40 CFR §141.61 (U.S. EPA MCLs), and 40 CFR §141.50 (U.S. EPA MCLGs). The values in this table are in **units of nanograms per liter (ng/L)** unless otherwise stated.

Chemicals	California				U.S. EPA		
	MCL	DLR	PHG	PHG Date	MCL	MCL Effective Date	MCLG
N-Nitrosodimethylamine (NDMA)	--	--	3	2006	--	--	--
Perfluorooctanoic acid (PFOA)	--	--	0.007	2024	4.0	2029-04-26	zero
Perfluorooctane sulfonic acid (PFOS)	--	--	1	2024	4.0	2029-04-26	zero
Perfluorohexane sulfonic acid (PFHxS)	--	--	--	--	10.0	2029-04-26	10
Perfluorononanoate (PFNA)	--	--	--	--	10.0	2029-04-26	10
2,3,3,3-Tetrafluoro-2-(heptafluoropropoxy)propanoate (HFPO-DA or GenX Chemicals)	--	--	--	--	10.0	2029-04-26	10
PFAS Hazard Index[13] (includes HFPO-DA, PFBS[14], PFHxS, and PFNA)	--	--	--	--	1 (unitless)	2029-04-26	1 (unitless)

[13] PFAS Hazard Index = ([$HFPO\text{-}DA_{water}$ ng/L]/[10 ng/L]) + ([$PFBS_{water}$ ng/L]/[2000 ng/L]) + ([$PFNA_{water}$ ng/L]/[10 ng/L]) + ([$PFHxS_{water}$ ng/L]/[10 ng/L])

[14] Perfluorobutane sulfonate (PFBS)

ATTACHMENT 3

HEALTH RISK INFORMATION FOR PUBLIC HEALTH GOAL EXCEEDANCE REPORTS

PREPARED BY OEHHA
FEBRUARY 2025

OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT

Public Health Goals

Health Risk Information for Public Health Goal Exceedance Reports

February 2025

Pesticide and Environmental Toxicology Branch
Office of Environmental Health Hazard Assessment
California Environmental Protection Agency

Health Risk Information for Public Health Goal Exceedance Reports

Prepared by

Office of Environmental Health Hazard Assessment
California Environmental Protection Agency

February 2025

NEW for the 2025 Report: New in this document are newly established Public Health Goals (PHGs) for perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), and five haloacetic acids: monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid.

Background: Under the Calderon-Sher Safe Drinking Water Act of 1996 (the Act), public water systems with more than 10,000 service connections are required to prepare a report every three years for contaminants that exceed their respective PHGs.[1] This document contains health risk information on drinking water contaminants to assist public water systems in preparing these reports. A PHG is the concentration of a contaminant in drinking water that poses no significant health risk if consumed for a lifetime. PHGs are developed and published by the Office of Environmental Health Hazard Assessment (OEHHA) using current risk assessment principles, practices and methods.[2]

The water system's report is required to identify the health risk category (e.g., carcinogenicity or neurotoxicity) associated with exposure to each contaminant in drinking water that has a PHG and to include a brief, plainly worded description of these risks. The report is also required to disclose the numerical public health risk, if available, associated with the California Maximum Contaminant Level (MCL) and with the PHG for each contaminant. This health risk information document is prepared by OEHHA every three years to assist the water systems in providing the required information in their reports.

[1] Health and Safety Code Section 116470(b)
[2] Health and Safety Code Section 116365

Numerical health risks: Table 1 presents health risk categories and cancer risk values for chemical contaminants in drinking water that have PHGs.

The Act requires that OEHHA publish PHGs based on health risk assessments using the most current scientific methods. As defined in statute, PHGs for non-carcinogenic chemicals in drinking water are set at a concentration “at which no known or anticipated adverse health effects will occur, with an adequate margin of safety.” For carcinogens, PHGs are set at a concentration that “does not pose any significant risk to health.” PHGs provide one basis for revising MCLs, along with cost and technological feasibility. OEHHA has been publishing PHGs since 1997 and the entire list published to date is shown in Table 1.

Table 2 presents health risk information for contaminants that do not have PHGs but have state or federal regulatory standards. The Act requires that, for chemical contaminants with California MCLs that do not yet have PHGs, water utilities use the federal Maximum Contaminant Level Goal (MCLG) for the purpose of complying with the requirement of public notification. MCLGs, like PHGs, are strictly health based and include a margin of safety. One difference, however, is that the MCLGs for carcinogens are set at zero because the US Environmental Protection Agency (US EPA) assumes there is no absolutely safe level of exposure to such chemicals. PHGs, on the other hand, are set at a level considered to pose no *significant* risk of cancer; this is usually no more than a one-in-one-million excess cancer risk ($1{\times}10^{-6}$) level for a lifetime of exposure. In Table 2, the cancer risks shown are based on the US EPA’s evaluations.

For more information on health risks: The adverse health effects for each chemical with a PHG are summarized in a PHG technical support document. These documents are available on the OEHHA website (https://oehha.ca.gov/water/public-health-goals-phgs).

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Alachlor	carcinogenicity (causes cancer)	0.004	NA[5,6]	0.002	NA
Aluminum	neurotoxicity and immunotoxicity (harms the nervous and immune systems)	0.6	NA	1	NA
Antimony	hepatotoxicity (harms the liver)	0.001	NA	0.006	NA
Arsenic	carcinogenicity (causes cancer)	0.000004 (4×10^{-6})	1×10^{-6} (one per million)	0.01	2.5×10^{-3} (2.5 per thousand)
Asbestos	carcinogenicity (causes cancer)	7 MFL[7] (fibers >10 microns in length)	1×10^{-6}	7 MFL (fibers >10 microns in length)	1×10^{-6} (one per million)
Atrazine	carcinogenicity (causes cancer)	0.00015	1×10^{-6}	0.001	7×10^{-6} (seven per million)
Barium	cardiovascular toxicity (causes high blood pressure)	2	NA	1	NA

[1] Based on the OEHHA PHG technical support document unless otherwise specified. The categories are the hazard traits defined by OEHHA for California's Toxics Information Clearinghouse (online at: https://oehha.ca.gov/media/downloads/risk-assessment//gcregtext011912.pdf).
[2] mg/L = milligrams per liter of water, equivalent to parts per million (ppm)
[3] Cancer Risk = Upper bound estimate of excess cancer risk from lifetime exposure. Actual cancer risk may be lower or zero. 1×10^{-6} means one excess cancer case per million people exposed.
[4] MCL = maximum contaminant level.
[5] NA = not applicable. Cancer risk cannot be calculated.
[6] The PHG for alachlor is based on a threshold model of carcinogenesis and is set at a level that is believed to be without any significant cancer risk to individuals exposed to the chemical over a lifetime.
[7] MFL = million fibers per liter of water.

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Bentazon	hepatotoxicity and digestive system toxicity (harms the liver, intestine, and causes body weight effects[8])	0.2	NA	0.018	NA
Benzene	carcinogenicity (causes leukemia)	0.00015	1×10^{-6}	0.001	7×10^{-6} (seven per million)
Benzo[a]pyrene	carcinogenicity (causes cancer)	0.000007 (7×10^{-6})	1×10^{-6}	0.0002	3×10^{-5} (three per hundred thousand)
Beryllium	digestive system toxicity (harms the stomach or intestine)	0.001	NA	0.004	NA
Bromate	carcinogenicity (causes cancer)	0.0001	1×10^{-6}	0.01	1×10^{-4} (one per ten thousand)
Cadmium	nephrotoxicity (harms the kidney)	0.00004	NA	0.005	NA
Carbofuran	reproductive toxicity (harms the testis)	0.0007	NA	0.018	NA
Carbon tetrachloride	carcinogenicity (causes cancer)	0.0001	1×10^{-6}	0.0005	5×10^{-6} (five per million)

[8] Body weight effects are an indicator of general toxicity in animal studies.

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Chlordane	carcinogenicity (causes cancer)	0.00003	1×10^{-6}	0.0001	3×10^{-6} (three per million)
Chlorite	hematotoxicity (causes anemia) neurotoxicity (causes neurobehavioral effects)	0.05	NA	1	NA
Chromium, hexavalent	carcinogenicity (causes cancer)	0.00002	1×10^{-6}	0.010	5×10^{-4} (five per ten thousand)
Copper	digestive system toxicity (causes nausea, vomiting, diarrhea)	0.3	NA	1.3 (AL[9])	NA
Cyanide	neurotoxicity (damages nerves) endocrine toxicity (affects the thyroid)	0.15	NA	0.15	NA
Dalapon	nephrotoxicity (harms the kidney)	0.79	NA	0.2	NA
Di(2-ethylhexyl) adipate (DEHA)	developmental toxicity (disrupts development)	0.2	NA	0.4	NA
Di(2-ethylhexyl) phthalate (DEHP)	carcinogenicity (causes cancer)	0.012	1×10^{-6}	0.004	3×10^{-7} (three per ten million)

[9] AL = action level. The action levels for copper and lead refer to a concentration measured at the tap. Much of the copper and lead in drinking water is derived from household plumbing (The Lead and Copper Rule, Title 22, California Code of Regulations [CCR] section 64672.3).

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
1,2-Dibromo-3-chloropropane (DBCP)	carcinogenicity (causes cancer)	0.000003 ($3x10^{-6}$)	1×10^{-6}	0.0002	7×10^{-5} (seven per hundred thousand)
1,2-Dichloro-benzene (*o*-DCB)	hepatotoxicity (harms the liver)	0.6	NA	0.6	NA
1,4-Dichloro-benzene (*p*-DCB)	carcinogenicity (causes cancer)	0.006	1×10^{-6}	0.005	8×10^{-7} (eight per ten million)
1,1-Dichloro-ethane (1,1-DCA)	carcinogenicity (causes cancer)	0.003	1×10^{-6}	0.005	2×10^{-6} (two per million)
1,2-Dichloro-ethane (1,2-DCA)	carcinogenicity (causes cancer)	0.0004	1×10^{-6}	0.0005	1×10^{-6} (one per million)
1,1-Dichloro-ethylene (1,1-DCE)	hepatotoxicity (harms the liver)	0.01	NA	0.006	NA
1,2-Dichloro-ethylene, cis	nephrotoxicity (harms the kidney)	0.013	NA	0.006	NA
1,2-Dichloro-ethylene, trans	immunotoxicity (harms the immune system)	0.05	NA	0.01	NA
Dichloromethane (methylene chloride)	carcinogenicity (causes cancer)	0.004	1×10^{-6}	0.005	1×10^{-6} (one per million)

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
2,4-Dichloro-phenoxyacetic acid (2,4-D)	hepatotoxicity and nephrotoxicity (harms the liver and kidney)	0.02	NA	0.07	NA
1,2-Dichloro-propane (propylene dichloride)	carcinogenicity (causes cancer)	0.0005	1×10^{-6}	0.005	1×10^{-5} (one per hundred thousand)
1,3-Dichloro-propene (Telone II®)	carcinogenicity (causes cancer)	0.0002	1×10^{-6}	0.0005	2×10^{-6} (two per million)
Dinoseb	reproductive toxicity (harms the uterus and testis)	0.014	NA	0.007	NA
Diquat	ocular toxicity (harms the eye) developmental toxicity (causes malformation)	0.006	NA	0.02	NA
Endothall	digestive system toxicity (harms the stomach or intestine)	0.094	NA	0.1	NA
Endrin	neurotoxicity (causes convulsions) hepatotoxicity (harms the liver)	0.0003	NA	0.002	NA
Ethylbenzene (phenylethane)	hepatotoxicity (harms the liver)	0.3	NA	0.3	NA
Ethylene dibromide (1,2-Dibromoethane)	carcinogenicity (causes cancer)	0.00001	1×10^{-6}	0.00005	5×10^{-6} (five per million)

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Fluoride	musculoskeletal toxicity (causes tooth mottling)	1	NA	2	NA
Glyphosate	nephrotoxicity (harms the kidney)	0.9	NA	0.7	NA
Haloacetic acids: dibromoacetic acid	carcinogenicity (causes cancer)	0.00003	1×10^{-6}	0.06*	2×10^{-3} (two per thousand)[10]
Haloacetic acids: dichloroacetic acid	carcinogenicity (causes cancer)	0.0002	1×10^{-6}	0.06*	3×10^{-4} (three per ten thousand)[11]
Haloacetic acids: monobromo-acetic acid	musculoskeletal toxicity (causes muscular degeneration)	0.025	NA	0.06*	NA
Haloacetic acids: monochloro-acetic acid	general toxicity (causes body and organ weight changes[8])	0.053	NA	0.06*	NA
Haloacetic acids: trichloroacetic acid	carcinogenicity (causes cancer)	0.0001	1×10^{-6}	0.06*	6×10^{-4} (six per ten thousand)[12]
Heptachlor	carcinogenicity (causes cancer)	0.000008 (8×10^{-6})	1×10^{-6}	0.00001	1×10^{-6} (one per million)

* For total haloacetic acids (the sum of dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, and trichloroacetic acid). There are no MCLs for individual haloacetic acids.

[10] Based on 0.060 mg/L dibromoacetic acid; the risk will vary with different combinations and ratios of the other haloacetic acids in a particular sample.

[11] Based on 0.060 mg/L dichloroacetic acid; the risk will vary with different combinations and ratios of the other haloacetic acids in a particular sample.

[12] Based on 0.060 mg/L trichloroacetic acid; the risk will vary with different combinations and ratios of the other haloacetic acids in a particular sample.

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Heptachlor epoxide	carcinogenicity (causes cancer)	0.000006 (6×10^{-6})	1×10^{-6}	0.00001	2×10^{-6} (two per million)
Hexachloro-benzene	carcinogenicity (causes cancer)	0.00003	1×10^{-6}	0.001	3×10^{-5} (three per hundred thousand)
Hexachloro-cyclopentadiene (HCCPD)	digestive system toxicity (causes stomach lesions)	0.002	NA	0.05	NA
Lead	developmental neurotoxicity (causes neurobehavioral effects in children) cardiovascular toxicity (causes high blood pressure) carcinogenicity (causes cancer)	0.0002	$<1\times10^{-6}$ (PHG is not based on this effect)	0.015 (AL[9])	2×10^{-6} (two per million)
Lindane (γ-BHC)	carcinogenicity (causes cancer)	0.000032	1×10^{-6}	0.0002	6×10^{-6} (six per million)
Mercury (inorganic)	nephrotoxicity (harms the kidney)	0.0012	NA	0.002	NA
Methoxychlor	endocrine toxicity (causes hormone effects)	0.00009	NA	0.03	NA
Methyl tertiary-butyl ether (MTBE)	carcinogenicity (causes cancer)	0.013	1×10^{-6}	0.013	1×10^{-6} (one per million)

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Molinate	carcinogenicity (causes cancer)	0.001	1×10^{-6}	0.02	2×10^{-5} (two per hundred thousand)
Monochloro-benzene (chlorobenzene)	nephrotoxicity (harms the kidney)	0.07	NA	0.07	NA
Nickel	developmental toxicity (causes increased neonatal deaths)	0.012	NA	0.1	NA
Nitrate	hematotoxicity (causes methemoglobinemia)	45 as nitrate	NA	10 as nitrogen (=45 as nitrate)	NA
Nitrite	hematotoxicity (causes methemoglobinemia)	3 as nitrite	NA	1 as nitrogen (=3 as nitrite)	NA
Nitrate and Nitrite	hematotoxicity (causes methemoglobinemia)	10 as nitrogen[13]	NA	10 as nitrogen	NA
N-nitroso-dimethyl-amine (NDMA)	carcinogenicity (causes cancer)	0.000003 (3×10^{-6})	1×10^{-6}	none	NA
Oxamyl	general toxicity (causes body weight effects)	0.026	NA	0.05	NA

[13] The joint nitrate/nitrite PHG of 10 mg/L (10 ppm, expressed as nitrogen) does not replace the individual values, and the maximum contribution from nitrite should not exceed 1 mg/L nitrite-nitrogen.

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Pentachloro-phenol (PCP)	carcinogenicity (causes cancer)	0.0003	1×10^{-6}	0.001	3×10^{-6} (three per million)
Perchlorate	endocrine toxicity (affects the thyroid) developmental toxicity (causes neurodevelop-mental deficits)	0.001	NA	0.006	NA
Perfluorooctane sulfonic acid (PFOS)	carcinogenicity (causes cancer)	1×10^{-6}	1×10^{-6}	NA	NA
Perfluoro-octanoic acid (PFOA)	carcinogenicity (causes cancer)	7×10^{-9}	1×10^{-6}	NA	NA
Picloram	hepatotoxicity (harms the liver)	0.166	NA	0.5	NA
Polychlorinated biphenyls (PCBs)	carcinogenicity (causes cancer)	0.00009	1×10^{-6}	0.0005	6×10^{-6} (six per million)
Radium-226	carcinogenicity (causes cancer)	0.05 pCi/L	1×10^{-6}	5 pCi/L (combined $Ra^{226+228}$)	1×10^{-4} (one per ten thousand)
Radium-228	carcinogenicity (causes cancer)	0.019 pCi/L	1×10^{-6}	5 pCi/L (combined $Ra^{226+228}$)	3×10^{-4} (three per ten thousand)
Selenium	integumentary toxicity (causes hair loss and nail damage)	0.03	NA	0.05	NA

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Silvex (2,4,5-TP)	hepatotoxicity (harms the liver)	0.003	NA	0.05	NA
Simazine	general toxicity (causes body weight effects)	0.004	NA	0.004	NA
Strontium-90	carcinogenicity (causes cancer)	0.35 pCi/L	1×10^{-6}	8 pCi/L	2×10^{-5} (two per hundred thousand)
Styrene (vinylbenzene)	carcinogenicity (causes cancer)	0.0005	1×10^{-6}	0.1	2×10^{-4} (two per ten thousand)
1,1,2,2-Tetrachloro-ethane	carcinogenicity (causes cancer)	0.0001	1×10^{-6}	0.001	1×10^{-5} (one per hundred thousand)
2,3,7,8-Tetra-chlorodibenzo-*p*-dioxin (TCDD, or dioxin)	carcinogenicity (causes cancer)	5×10^{-11}	1×10^{-6}	3×10^{-8}	6×10^{-4} (six per ten thousand)
Tetrachloro-ethylene (perchloro-ethylene, or PCE)	carcinogenicity (causes cancer)	0.00006	1×10^{-6}	0.005	8×10^{-5} (eight per hundred thousand)
Thallium	integumentary toxicity (causes hair loss)	0.0001	NA	0.002	NA

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Thiobencarb	general toxicity (causes body weight effects) hematotoxicity (affects red blood cells)	0.042	NA	0.07	NA
Toluene (methylbenzene)	hepatotoxicity (harms the liver) endocrine toxicity (harms the thymus)	0.15	NA	0.15	NA
Toxaphene	carcinogenicity (causes cancer)	0.00003	1×10^{-6}	0.003	1×10^{-4} (one per ten thousand)
1,2,4-Trichloro-benzene	endocrine toxicity (harms adrenal glands)	0.005	NA	0.005	NA
1,1,1-Trichloro-ethane	neurotoxicity (harms the nervous system), reproductive toxicity (causes fewer offspring) hepatotoxicity (harms the liver) hematotoxicity (causes blood effects)	1	NA	0.2	NA
1,1,2-Trichloro-ethane	carcinogenicity (causes cancer)	0.0003	$1x10^{-6}$	0.005	2×10^{-5} (two per hundred thousand)
Trichloro-ethylene (TCE)	carcinogenicity (causes cancer)	0.0017	1×10^{-6}	0.005	3×10^{-6} (three per million)

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Trichlorofluoro-methane (Freon 11)	accelerated mortality (increase in early death)	1.3	NA	0.15	NA
1,2,3-Trichloro-propane (1,2,3-TCP)	carcinogenicity (causes cancer)	0.0000007 (7×10^{-7})	1×10^{-6}	0.000005 (5×10^{-6})	7×10^{-6} (seven per million)
1,1,2-Trichloro-1,2,2-trifluoro-ethane (Freon 113)	hepatotoxicity (harms the liver)	4	NA	1.2	NA
Trihalomethanes: Bromodichloro-methane	carcinogenicity (causes cancer)	0.00006	1×10^{-6}	0.080[#]	1.3×10^{-3} (1.3 per thousand)[14]
Trihalomethanes: Bromoform	carcinogenicity (causes cancer)	0.0005	1×10^{-6}	0.080[#]	2×10^{-4} (two per ten thousand)[15]
Trihalomethanes: Chloroform	carcinogenicity (causes cancer)	0.0004	1×10^{-6}	0.080[#]	2×10^{-4} (two per ten thousand)[16]

[#] For total trihalomethanes (the sum of bromodichloromethane, bromoform, chloroform, and dibromochloromethane). There are no MCLs for individual trihalomethanes.
[14] Based on 0.080 mg/L bromodichloromethane; the risk will vary with different combinations and ratios of the other trihalomethanes in a particular sample.
[15] Based on 0.080 mg/L bromoform; the risk will vary with different combinations and ratios of the other trihalomethanes in a particular sample.
[16] Based on 0.080 mg/L chloroform; the risk will vary with different combinations and ratios of the other trihalomethanes in a particular sample.

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Trihalomethanes: Dibromochloro-methane	carcinogenicity (causes cancer)	0.0001	1×10^{-6}	0.080[#]	8×10^{-4} (eight per ten thousand)[17]
Tritium	carcinogenicity (causes cancer)	400 pCi/L	1×10^{-6}	20,000 pCi/L	5×10^{-5} (five per hundred thousand)
Uranium	carcinogenicity (causes cancer)	0.43 pCi/L	1×10^{-6}	20 pCi/L	5×10^{-5} (five per hundred thousand)
Vinyl chloride	carcinogenicity (causes cancer)	0.00005	1×10^{-6}	0.0005	1×10^{-5} (one per hundred thousand)
Xylene	neurotoxicity (affects the senses, mood, and motor control)	1.8 (single isomer or sum of isomers)	NA	1.75 (single isomer or sum of isomers)	NA

[#] For total trihalomethanes (the sum of bromodichloromethane, bromoform, chloroform, and dibromochloromethane). There are no MCLs for individual trihalomethanes.

[17] Based on 0.080 mg/L dibromochloromethane; the risk will vary with different combinations and ratios of the other trihalomethanes in a particular sample.

Table 2: Health Risk Categories and Cancer Risk Values for Chemicals without California Public Health Goals

Chemical	Health Risk Category[1]	US EPA MCLG[2] (mg/L)	Cancer Risk[3] at the MCLG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Disinfection byproducts (DBPs)					
Chloramines	acute toxicity (causes irritation) digestive system toxicity (harms the stomach) hematotoxicity (causes anemia)	4[5,6]	NA[7]	none	NA
Chlorine	acute toxicity (causes irritation) digestive system toxicity (harms the stomach)	4[5,6]	NA	none	NA
Chlorine dioxide	hematotoxicity (causes anemia) neurotoxicity (harms the nervous system)	0.8[5,6]	NA	none	NA
Radionuclides					

[1] Health risk category based on the US EPA MCLG document or California MCL document unless otherwise specified.
[2] MCLG = maximum contaminant level goal established by US EPA.
[3] Cancer Risk = Upper estimate of excess cancer risk from lifetime exposure. Actual cancer risk may be lower or zero. 1×10^{-6} means one excess cancer case per million people exposed.
[4] California MCL = maximum contaminant level established by California.
[5] Maximum Residual Disinfectant Level Goal, or MRDLG.
[6] The federal Maximum Residual Disinfectant Level (MRDL), or highest level of disinfectant allowed in drinking water, is the same value for this chemical.
[7] NA = not available.

Table 2: Health Risk Categories and Cancer Risk Values for Chemicals without California Public Health Goals

Chemical	Health Risk Category[1]	US EPA MCLG[2] (mg/L)	Cancer Risk[3] at the MCLG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Gross alpha particles[8]	carcinogenicity (causes cancer)	0 (^{210}Po included)	0	15 pCi/L[9] (includes radium but not radon and uranium)	up to 1×10^{-3} (for ^{210}Po, the most potent alpha emitter)
Beta particles and photon emitters[8]	carcinogenicity (causes cancer)	0 (^{210}Pb included)	0	50 pCi/L (judged equiv. to 4 mrem/yr)	up to 2×10^{-3} (for ^{210}Pb, the most potent beta-emitter)

[8] MCLs for gross alpha and beta particles are screening standards for a group of radionuclides. Corresponding PHGs were not developed for gross alpha and beta particles. See the OEHHA memoranda discussing the cancer risks at these MCLs at http://www.oehha.ca.gov/water/reports/grossab.html.
[9] pCi/L = picocuries per liter of water.

ATTACHMENT 4

DESCRIPTION OF COST ESTIMATE PROCEDURES

Estimate of Ion-Exchange Treatment Costs – Cost estimates were developed for ion-exchange treatment of arsenic and hexavalent chromium with a strong-base anion (SBA) resin. The SBA treatment costs were estimated for arsenic and for hexavalent chromium, respectively, in the finished water. The cost estimates were developed for each well using the maximum concentration measured during 2022 – 2024 as the treatment design influent concentration for arsenic and hexavalent chromium and using the maximum well production during the same period. The cost estimates were developed with WQTS' in-house SBA ion exchange treatment design and cost model. The cost estimates were based on 2013 costs and have an expected accuracy range of +50/-30%. For the model to predict cost, it needed to make projections about treatment performance based on water quality, and then constructed capital and annual O&M cost based on specific unit costs of equipment, chemicals, supplies, labor, energy, disposal fees, etc. The estimated costs also assume that the untreated liquid waste brine is discharged to the sewer. Some of the same wells that were reported in the City's 2022 PHG report again detected arsenic above the PHG (and these wells had capital and O&M costs developed previously for 2021 dollars). In this PHG report the capital and annual O&M costs were adjusted from 2021 dollars to 2024 dollars using the 20-city national average Engineering News Record Construction Cost Index for capital cost adjustment and the Consumer Price Index for O&M cost adjustment.

Estimate of Reverse Osmosis Treatment Cost – Cost estimates for gross alpha and uranium treatment of Wells 93, 94 and 129 with reverse osmosis (RO) were estimated from cost equations generated for the removal of CrVI with RO technology and are reported in Seidel, et al. 2013.[3] Cost equations are provided for estimating capital and O&M costs in 2012 dollars. Capital costs are based on the design flow, whereas O&M costs are based on the average flow, which was set to 70% of the design flow. The cost equations assume that the RO concentrate is discharged to the sewer. The capital and annual O&M costs were adjusted from 2021 dollars to 2024 dollars using the 20-city national average Engineering News Record Construction Cost Index for capital cost adjustment and the Consumer Price Index for O&M cost adjustment.

Estimate of Ion-Exchange Treatment Costs for PFAS Treatment – Cost estimates were developed for ion-exchange treatment of PFAS with a single-use anion exchange (AIX) resin. The cost estimates were developed for each well using the maximum concentration measured during 2022 – 2024 as the treatment design influent concentration for PFOA and PFOS and using the maximum well production. The cost estimates were developed with WQTS' in-house AIX treatment design and cost model for PFAS removal from groundwater. The cost estimates have an expected accuracy range of +50/-30%. For the model to predict cost, it needed to make projections about treatment performance

[3] Seidel, C. J., Najm, I. N., Blute, N. K., Corwin, C. J., & Wu, X. (2013). National and California treatment costs to comply with potential hexavalent chromium MCLs. American Water Works Association, 105(6), E320–E336.

based on water quality, and then constructed capital and annual O&M cost based on specific unit costs of equipment, resin, labor, energy, etc. The estimated costs also assume that the spent resin will be disposed of, via incineration, by the supplier of the replacement resin.

ATTACHMENT 5

CITY OF SACRAMENTO – DEPARTMENT OF UTILITIES

2022, 2023 AND 2024 CONSUMER CONFIDENCE REPORTS

2022 CONSUMER CONFIDENCE REPORT

Sedimentation basin at Sacramento River Water Treatment Plant

City of SACRAMENTO
Department of Utilities

IMPORTANT DRINKING WATER QUALITY INFORMATION FOR CITY OF SACRAMENTO DRINKING WATER CUSTOMERS

INTRODUCTION

This Consumer Confidence Report (CCR) is presented to help City of Sacramento Water customers understand where their water comes from and what it contains. Routine water supply testing for more than 100 substances is performed to confirm that **your water meets or exceeds all federal and state drinking water standards.** This CCR summarizes the most recent detected water quality results through 2022 and is the most current publication for the period June 01, 2023 through May 31, 2024.

The City is committed to providing customers with up to date information on their drinking water through timely, transparent public notification. For more detailed information, visit sacramentowaterquality.com

SOURCES OF WATER

Eighty percent of the City of Sacramento's water supply comes from the American and Sacramento Rivers, with the remainder supplied by groundwater wells and transfers from Sacramento County Water Agency and Sacramento Suburban Water District. For more information on Sources of Water see Source Water Assessment on page 3.

WATER EFFICIENCY

Water-use efficiency is a California way of life, and the City of Sacramento continues to encourage water conservation. Find tips to save water and available rebates at SacWaterWise.com


City of Sacramento Water Division, All-Staff Event 2022 at Robla Training Facility


Sacramento River Water Treatment Plant Intake Structure

REQUIRED DISCLOSURES FOR DRINKING WATER CONSUMERS

This information is presented to further educate consumers about drinking water 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 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.

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 amount of certain contaminants in water provided by public water systems. State Water Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

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).

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).

SOURCE WATER ASSESSMENT

A watershed sanitary survey (WSS) focuses on evaluating source water quality and potential watershed contaminant sources to provide key information to aid in understanding how to maintain and possibly improve source water protection, the first barrier in protecting public health. An evaluation of water treatment plant capabilities and treated water quality provides an assessment of the ability of a water utility to treat their source water.

Initial WSS reports for the City's Sacramento River and American River water sources were completed in 2000 and 2001. These reports indicated that both rivers are most vulnerable to contaminants from recreational activities and that the Sacramento River is also most susceptible to agricultural contaminants. The City of Sacramento, in partnership with several other water utilities, complete WSS updates of the river water sources every five years. The WSS updates were most recently completed in 2020 and 2018 for the Sacramento and American Rivers, respectively.

An assessment of the City's groundwater wells was completed in January 2001. Due to the proximity to potential contaminant sources, the wells north of the American River are considered most vulnerable to sewage collection systems, leaking underground storage tanks, known contaminant plumes, agricultural drainage, gas stations, dry cleaners, metal plating and chemical processing storage facilities, electrical/electronic manufacturing, and automobile repair and body shops. Wells south of the American River are considered vulnerable to leaking underground storage tanks and sewage collection systems.

Despite these potential vulnerabilities, your water continues to meet or exceed all state and federal drinking water standards. Please call 916-808-5454 to request a summary of the assessments or make an appointment for an in-person viewing.


Paul, Water Treatment Plant Operator visually inspects a sample in the E.A. Fairbairn Operations Lab

WATER QUALITY ANALYSIS RESULTS FOR 2022

Your water meets or exceeds all federal and state drinking water standards.

While the City of Sacramento tests for more than 100 substances, this report only lists those detected at or above the federal or state level for reporting.

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

1 Regulated for Public Health (Primary Drinking Water Standard)

						PRIMARY WATER SUPPLY			WATER TRANSFERS [G]		
	Constituent (Unit)	Highest Amount Allowed MCL, MRDL or TT	State or Federal Goal PHG, MCLG or MRDLG	Year Monitored	System Average	E.A. Fairbairn Water Treatment Plant (American River)	Sacramento River Water Treatment Plant	City of Sacramento Groundwater	Sacramento County Water Agency	Sacramento Suburban Water District	Typical Sources in Drinking Water
DISINFECTION and DBPs	Chlorine as Cl_2 (mg/L)	4	4	2022	0.7	ND – 1.4 [A]					Drinking water disinfectant added for treatment
	Haloacetic Acids (µg/L)	60	NA	2022	47 [B]	2.6 – 76 [B]					By-product of drinking water disinfection
	Trihalomethanes (µg/L)	80	NA	2022	71 [B]	15 – 87 [B]					By-product of drinking water disinfection
	Control of DBP Precursors - TOC (mg/L)	2.0	NA	2022	NA	1.8 [C]	1.7 [C]	NA	NA	NA	Various natural and man-made sources
INORGANIC COMPOUNDS	Aluminum (µg/L)	1.0	0.6	2020 – 2022	ND	ND	ND	ND	ND	ND – 0.05	
	Arsenic (µg/L)	10	0.004	2020 – 2022	2.7	ND	ND	2.4 – 4.6	ND – 7.4	ND – 4.3	Erosion of natural deposits
	Barium (mg/L)	1	2	2020 – 2022	ND	ND	ND	ND – 0.26	ND – 0.87	ND – 0.14	Erosion of natural deposits
	Chromium Total (µg/L)	50	100	2020 – 2022	ND	ND	ND	ND	ND – 10	ND	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
	Copper (mg/L)	1.3 [AL]	0.3	2020	0.09	62 samples collected; 0 individual samples exceeded AL; 90th percentile concentration: 0.09 (Less than AL, meets requirement)					Internal corrosion of household water plumbing systems
	Fluoride in source water [D] (mg/L)	2.0	1	2022	ND	ND	ND	ND – 0.2	ND – 0.47	NA	Erosion of natural deposits
	Fluoride in treated water [D] (mg/L)	2.0	1	2022	0.7	0.0 – 1.0 [A]					Water additive that promotes strong teeth
	Lead (µg/L)	15 [AL]	0.2	2020	ND	62 samples collected; 2 individual samples exceeded AL; 90th percentile concentration: ND (Less than AL, meets requirement)					Internal corrosion of household water plumbing systems
	Nitrate as Nitrogen (mg/L)	10	10	2022	1.4	ND	ND	ND – 3.6	ND – 3.5	ND – 6.7	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
	Selenium (µg/L)	50	30	2022	ND	ND	ND	ND – 5.9	ND	ND	Erosion of natural deposits
ORGANIC COM-POUNDS	Trichloroethylene [TCE] (µg/L)	5	1.7	2020 – 2022	ND	ND	ND	ND	ND	ND – 0.56	Discharge from metal degreasing sites and other factories
RADIO-LOGICAL	Gross Alpha (pCi/L)	15	0	2014 – 2021	ND	ND	ND	ND – 5.8 [E]	ND – 5.1	ND – 5.7	Erosion of natural deposits
TREATMENT TECHNIQUE	Turbidity [F] (NTU)	1 NTU	NA	2022	NA	0.09	0.14	NA	NA	NA	Soil runoff
	Turbidity [F] (NTU)	at least 95% of samples ≤ 0.3 NTU	NA	2022	NA	100%	100%	NA	NA	NA	Soil runoff

(A) Range of all results observed in distribution system; samples with ND chlorine undergo further analysis to ensure water supply safety.

(B) Compliance with MCL confirmed quarterly (every three months); system average shown represents highest locational running annual average calculated during any of the four quarters of 2022 while range represents all results observed in distribution system. Individual results may exceed the MCL as long as the running annual average does not.

(C) Compliance with TT confirmed quarterly (every three months); value shown represents highest running annual average calculated during any of the four quarters of 2022.

(D) In accordance with State law, the City of Sacramento adjusts the natural levels of fluoride in our water supplies to the optimal level determined by the Centers for Disease Control. More information about fluoridation is available at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml

(E) Gross alpha monitoring results are used for two purposes: To determine compliance with the gross alpha MCL and to screen for radium and uranium. Gross alpha results in all City sources measure below levels which direct uranium and radium monitoring, except for one well was above the screening threshold for uranium. In that well Uranium was measured at 4.5 pCi/L which is less than the uranium MCL of 20 pCi/L.

(F) Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

(G) Please see 2022 Consumer Confidence Reports published by these agencies for more detailed water quality information; Sacramento County Water Agency https://waterresources.saccounty.net/ccr/ and Sacramento Suburban Water District https://www.sswd.org/departments/water-quality/consumer-confidence-reports

Units

µg/L	micrograms per liter: unit of concentration, equivalent to 1 part per billion or 1 second in nearly 32 years
µS/cm	microsiemens per centimeter: measure of electrical conductivity
mg/L	milligrams per liter: unit of concentration equivalent to 1 part per million or second in 11.5 years
ng/L	nanograms per liter; unit of concentration equivalent to 1 part per trillion or 1 second in nearly 32,000 years
NTU	Nephelometric Turbidity Units: measures cloudiness of water
pCi/L	picocuries per liter: measures radiation
TON	Theshold Odor Number: The greatest dilution of a sample with odor-free water that yields a detectable odor

Key Terms and Abbreviations

90th Percentile	The value for which 90 percent of samples had a lower result
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow
Constituent	A chemical or parameter measured in the water supply
DBPs	Disinfection By-Products: Substances that can form during a reaction of a disinfectant with naturally present organic matter in the water
Cl_2	Free Chlorine: chlorine available for disinfection
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHG (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water
MCLG	Maximum Contaminant Level Goal: 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
MRDL	Maximum Residual Disinfectant Level: 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
MRDLG	Maximum Residual Disinfectant Level Goal: The level of 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
NA	Not applicable
ND	Not detected
PDWS	Primary Drinking Water Standard: MCLs, MRDLs and treatment techniques (TTs) for contaminants that affect health, along with their monitoring and reporting requirements
PHG	Public Health Goal: 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
TOC	Total Organic Carbon: a measurement of the potential of water to form DBPs
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water

2 Regulated for Drinking Water Aesthetics - Secondary MCL

Constituent (Unit)	Highest Amount Allowed MCL	Year Monitored	System Average	PRIMARY WATER SUPPLY			WATER TRANSFERS		Typical Sources
				E.A. Fairbairn Water Treatment Plant (American River)	Sacramento River Water Treatment Plant	City of Sacramento Groundwater	Sacramento County Water Agency	Sacramento Suburban Water District	
Chloride (mg/L)	500	2020 – 2022	31	5.4	5.3	13 – 69	3.3 – 270	3.3 – 66	Erosion or leaching of natural deposits
Copper (mg/L)	1	2020 – 2021	ND	ND	ND	ND	ND – 0.11	ND – 0.10	Erosion of natural deposits
Color (units)	15	2022	ND		ND – 7 [A]				Naturally occurring organic materials
Manganese (µg/L)	50	2020 – 2022	ND	ND	ND	ND	ND – 31	ND	Leaching of natural deposits
Odor (units)	3	2022	ND		ND – 1.5 [A]				Naturally occurring organic materials
Specific Conductance (µS/cm)	1600	2020 – 2022	374	98	150	294 – 790	200 – 1200	160 – 510	Substances that form ions when in water
Sulfate (mg/L)	500	2020 – 2022	9.9	8.8	14	5.1 – 32	ND – 13	1.4 – 17	Erosion or leaching of natural deposits
Total Dissolved Solids (mg/L)	1000	2020 – 2022	250	61	90	210 – 480	170 – 710	130 – 340	Erosion or leaching of natural deposits
Turbidity (units)	5	2022	ND		ND – 2.7 [A]				Soil runoff

(A) Range of all results observed in distribution system.

3 Other Parameters of Interest to Customers / Constituents With No Established MCL

	Constituent (Unit)	Year Monitored	System Average	PRIMARY WATER SUPPLY			WATER TRANSFERS	
				E.A. Fairbairn Water Treatment Plant (American River)	Sacramento River Water Treatment Plant	City of Sacramento Groundwater	Sacramento County Water Agency	Sacramento Suburban Water District
	Calcium (mg/L)	2020 – 2022	26	11	15	17 – 62	4.4 – 73	14 – 39
	Chromium, Hexavalent [G] (µg/L)	2020 – 2022	4.3	ND	ND	ND – 7.7	NA	NA
	Hardness (mg/L)	2020 – 2022	141	38	57	85 – 320	20 – 330	56 – 210
	Hardness (grains per gallon)	2020 – 2022	8.2	2.2	3.3	5.0 – 19	1.2 – 19	3.3 – 12
	Magnesium (mg/L)	2020 – 2022	16	2.0	4.7	9.3 – 39	2.0 – 34	5.2 – 28
	Sodium (mg/L)	2020 – 2022	25	2.6	5.9	19 – 36	5.2 – 120	9.2 – 27
	Total Alkalinity (mg/L)	2020 – 2022	127	25	44	91 – 260	43 – 230	67 – 160
UCMR4	Germanium (µg/L)	2018 – 2020	ND	ND	ND	ND	ND – 1.9	ND
	Manganese (µg/L)	2018 – 2020	2.3	0.46 – 1.3	ND – 0.74	ND – 16.5	ND – 25	ND – 26
	Total HAA5 (µg/L) [H]	2018 – 2020	24.1			4.2 – 35 [A]		
	Total HAA6Br (µg/L) [H]	2018 – 2020	3.4			1.0 – 7.8 [A]		
	Total HAA9 (µg/L) [H]	2018 – 2020	27			5.0 – 38 [A]		

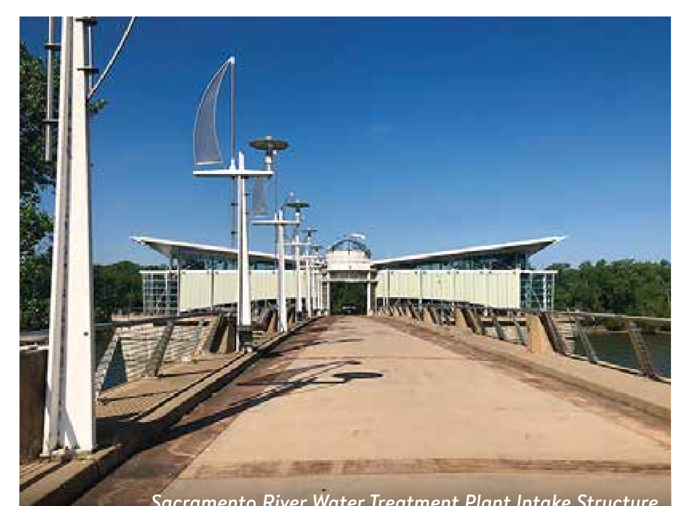
(A) Range of all results observed in distribution system.

(G) There was no MCL for hexavalent chromium in effect during 2022; The previous MCL of 10 µg/L was withdrawn on September 11, 2017.

(H) The Fourth UCMR required monitoring for several unregulated Haloacetic Acid compounds in addition to the regulated HAA5 presented in Table 1.

Lower American River at E.A. Fairbairn Water Treatment Plant Intake Structure

Sacramento River, upstream of Sacramento River Intake Structures



Sacramento River Water Treatment Plant Intake Structure

Sedimentation basin at Sacramento River Water Treatment Plant is refilled after being drained for cleaning and maintenance

LEAD

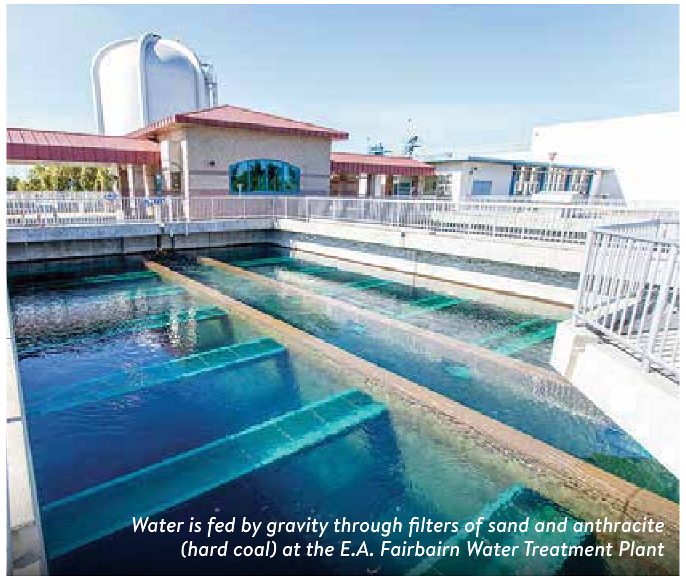
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with customer service lines and home plumbing. The City of Sacramento is responsible for providing high quality drinking water, but cannot control the variety of materials used in customer 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. 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 EPA Safe Drinking Water Hotline 1-800-426-4791 or at http://www.epa.gov/lead.

LEAD IN SCHOOLS

Between 2017 and 2019 the City of Sacramento provided lead testing to all public pre-kindergarten through 12th grade schools receiving City of Sacramento water supply as well as private schools that opted to participate. More than 600 samples were tested representing 132 schools and results were non-detect (less than 5 micrograms per liter) in 97 percent of the samples. All results are publicly available on the State Water Board's website http://www.waterboards.ca.gov/drinking_water/certlic/drinking-water/leadsamplinginschools.html

CYANOTOXINS

Microcystins and cylindrospermopsin are algal toxins produced by naturally occurring cyanobacteria in surface water sources (such as the American and Sacramento Rivers). These compounds are subject to a U.S. EPA Health Advisory and due to their potential presence in our source waters, the City of Sacramento voluntarily monitors for these compounds during vulnerable seasons, typically summer through late fall. There were no detections of microcystins or cylindrospermopsin during routine 2022 monitoring.



Water is fed by gravity through filters of sand and anthracite (hard coal) at the E.A. Fairbairn Water Treatment Plant

EARTHY OR MUSTY TASTE AND ODOR

Some customers may notice an earthy or musty taste in City water, most often occurring in late summer. This is due to the presence of Geosmin and 2-Methylisoborneol (MIB), odor compounds which are not removed through conventional water treatment. Although these compounds do not impact the safety of the City's drinking water, some customers find the taste and odor to be objectionable. Chilling the water can help improve the taste.

FEDERAL AND STATE REVISED TOTAL COLIFORM RULE

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2021. These revisions add the requirements of the federal Revised Total Coliform Rule, effective since April 1, 2016, to the existing state Total Coliform Rule. The revised rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E. coli bacteria). The U.S. EPA anticipates greater public health protection as the rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system. The state Revised Total Coliform Rule became effective July 1, 2021.

Filter backwash tank at E.A. Fairbairn Water Treatment Plant

PER- AND POLY-FLUOROALKYL SUBSTANCES (PFASs)

According to the California State Water Resources Control Board Division of Drinking Water (DDW), exposure to Per- and Polyfluoroalkyl Substances (PFASs) through drinking water has become an increasing concern due to the tendency of PFASs to accumulate in groundwater. PFASs are a large group of human-made substances that have been used extensively in consumer products designed to be waterproof, stain-resistant or non-stick. In addition, they have been used in fire-retarding foam and various industrial processes.

DDW can recommended interim action for water providers for compounds such as PFASs which do not yet have maximum contaminant levels (MCLs) set by regulation, by establishing Notification Levels and Response Levels:

- NL: Notification Level, level at which providing health-based advisories is recommended
- RL: Response Level, level at which removing a drinking water source from service is recommended

As of 2022, DDW has established an NL and RL for four individual PFASs measured in drinking water in nanograms per Liter or ng/L, a unit of concentration equivalent to 1 part per trillion:

PERFLUOROBUTANESULFONIC ACID (PFBS)

NL: 500 ng/L
RL: 5000 ng/L

2022 monitoring did not indicate the presence of PFBS in City of Sacramento surface water or groundwater sources.

PERFLUOROHEXANESULFONIC ACID (PFHxS)

NL: 3 ng/L
RL: 20 ng/L

2022 monitoring did not indicate the presence of PFHxS in City of Sacramento surface water. The 2022 range of results for groundwater and sources was non-detect to 7.4 ng/L which exceeds the NL.

DDW HEALTH EFFECTS LANGUAGE FOR PFHxS:
Perfluorohexane sulfonic acid exposures resulted in decreased total thyroid hormone in male rats.

PERFLUOROOCTANOIC ACID (PFOA)

NL: 5.1 ng/L
RL: 10 ng/L

2022 monitoring did not indicate the presence of PFOA in City of Sacramento surface water. The 2022 range of results for groundwater sources was non-detect to 5.0 ng/L.

PERFLUOROOCTANESULFONIC ACID (PFOS)

NL: 6.5 ng/L
RL: 40 ng/L

2022 monitoring did not indicate the presence of PFOS in City of Sacramento surface water. The 2022 range of results for ground water sources was non-detect to 13 ng/L which exceeds the NL.

DDW HEALTH EFFECTS LANGUAGE FOR PFOS:
Perfluorooctanesulfonic acid exposures resulted in immune suppression and cancer in laboratory animals.

As part of our mission to provide City customers with drinking water of the highest quality, the City of Sacramento is committed to continued monitoring, transparent public notification, and effective management of this emerging water quality issue. For more detailed information, visit: https://www.cityofsacramento.org/Utilities/Water/Water-Quality/PFAS

What You Should Know About...

TNI EARLY ADOPTER RECOGNITION FOR CITY LABORATORY

The City of Sacramento's Water Quality Laboratory was recognized by the California Environmental Laboratory Accreditation Program (ELAP) for proactively implementing the TNI Standard quality management system before the required compliance date of 2024. The City's lab maintains ELAP Certification for microbiological, inorganic and organic testing of drinking water samples with over 11,000 analyses performed in a calendar year.

City Water Quality Laboratory Staff with their TNI Early Adopter certificate of recognition


Mira, Water Quality Chemist performs an analytical procedure in the City's Microbiology lab

Sacramento River Water Treatment Plant

TO REPORT A CONCERN

City of Sacramento, Department of Utilities
311 or 916-264-5011
(24 hours a day, 7 days a week)
www.cityofsacramento.org/utilities

FOR QUESTIONS ABOUT THIS REPORT CONTACT

Rory Hartkemeyer
916-808-3738

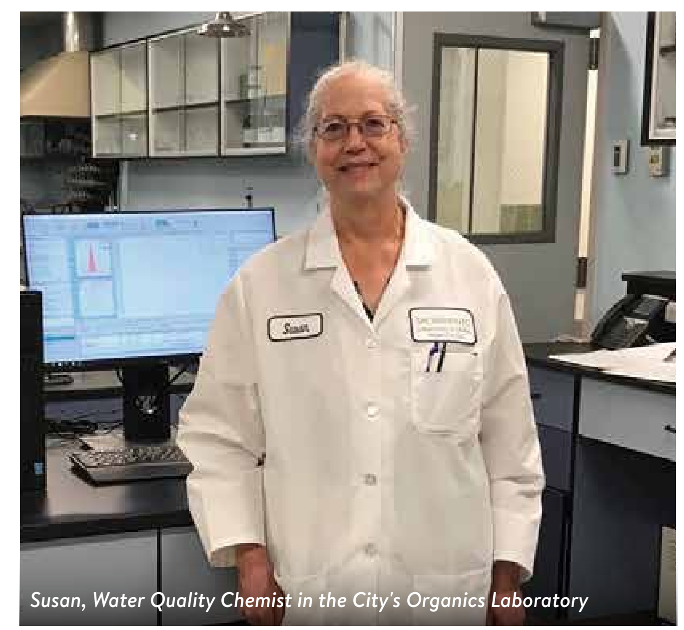
U.S. EPA Safe Drinking Water Hotline
1-800-426-4791
http://epa.gov/ground-water-and-drinking-water

NOTICE OF OPPORTUNITY FOR PUBLIC PARTICIPATION

The Sacramento City Council generally holds public meetings on Tuesday at 2 p.m. and/or 5 p.m. in the City Council Chambers at 915 I Street, Sacramento. You can access Council agendas at www.cityofsacramento.org/-clerk.

POTABILITY STATEMENT

The City of Sacramento water supply meets all potability requirements as set forth by the United States Environmental Protection Agency (USEPA) and the California Safe Drinking Water Act, Title 22. This certification relates to City of Sacramento water that is provided up to the property line or backflow preventer, whichever comes first.


Susan, Water Quality Chemist in the City's Organics Laboratory

UP-TO-DATE WATER QUALITY INFORMATION IS AVAILABLE

www.sacramentowaterquality.com

CALL 916-264-5011
我們講中文 · Hablamos Español
Мы говорим по-русски · ພວກເຮົາເວົ້າພາສາລາວໄດ້
Peb hais lus Hmoob · Chúng tôi nói tiếng Việt

"هذا التقرير يحتوي على معلوماَ ت مهمّة تتعلق بمياه الشفة (أو الشرب).
ترجم التقرير, أو تكلم مع شخص يستطيع أن يفهم التقرير."

Այս զեկույցը պարունակում է կարեւոր տեղեկատվություն Ձեր խմելու ջրով: Թարգմանել այն, կամ խոսել մեկի հետ, ով հասկանում է այն:

此份有關你的食水報告,內有重要資料和訊息,請找
他人為你翻譯及解釋清楚。

此份有关你的食水报告,内有重要资料和讯息,请找
他人为你翻译及解释清楚。

این اطلاعیه شامل اطلاعات مهمی راجع به آب آشامیدنی است. اگر نمیتوانید این اطلاعات را بزبان انگلیسی
بخوانید لطفاً از کسی که میتواند یاری بگیرید تا مطالب را برای شما به فارسی ترجمه کند.

यह सूचना महत्वपूर्ण है ।
कृपा करके किसी से :सका अनुवाद करायें ।

Daimntawv tshaj tawm no muaj lus tseemceeb txog koj cov dej haus. Tshab txhais nws, los yog tham nrog tej tug neeg uas totaub txog nws.

この報告書には上水道に関する重要な情報が記されて
おります。翻訳を御依頼なされるか、内容をご理解なさっ
ておられる方にお尋ね下さい。

របាយការណ៍នេះមានពត៌មានសំខា
ន់អំពីទឹកបរិភោគ ។ សូមបកប្រែ
ឬពិគ្រោះជាមួយអ្នកដែលមើលយល់
របាយការណ៍នេះ ។

이 안내는 매우 중요합니다.
본인을 위해 번역인을 사용하십시요.

ລາຍງານນີ້ມີຂໍ້ມູນສຳຄັນກ່ຽວກັບນ້ຳປະປາຂອງທ່ານ. ຈົ່ງໃຫ້ຄົນອື່ນແປຄວາມໃຫ້ທ່ານ,
ຫລືໃຫ້ປຶກສາກັບຄົນໃດຄົນໜຶ່ງທີ່ເຂົ້າໃຈເລື່ອງ.

Naaiv norm sou maaih jienv nyei fienx gorngv taux meih nyei wuom hopv. Faan fai gorngv bun mienh hiuv duqv.

ਇਹ ਸੂਚਨਾ ਮਹਤੱਵਪੂਰਣ ਹੈ।
ਕ੍ਰਿਪਾ ਕਰਕੇ ਕਿਸੀ ਤੋ ਇਸ ਦਾ ਅਨੁਵਾਦ ਕਰਾਉ।

Acest raport conține informații importante despre apa de băut. Traduceți-o sau discutați cu cineva care o înțelege.

Этот отчет содержит важную информацию о вашей питьевой воды. Переведите его или поговорите с тем, кто это понимает.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

Цей звіт містить важливу інформацію про вашу питну воду. Перекласти його, або поговорити з кимось, хто його розуміє.

Chi tiết này thật quan trọng.
Xin nhờ người dịch cho quý vị.

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City of SACRAMENTO
Department of Utilities

2023 Consumer Confidence Report

INTRODUCTION

This Consumer Confidence Report was created to help City of Sacramento water customers understand where their water comes from and what it contains.

Routine water supply testing for more than 100 substances is performed to confirm that your water meets or exceeds all federal and state drinking water standards.

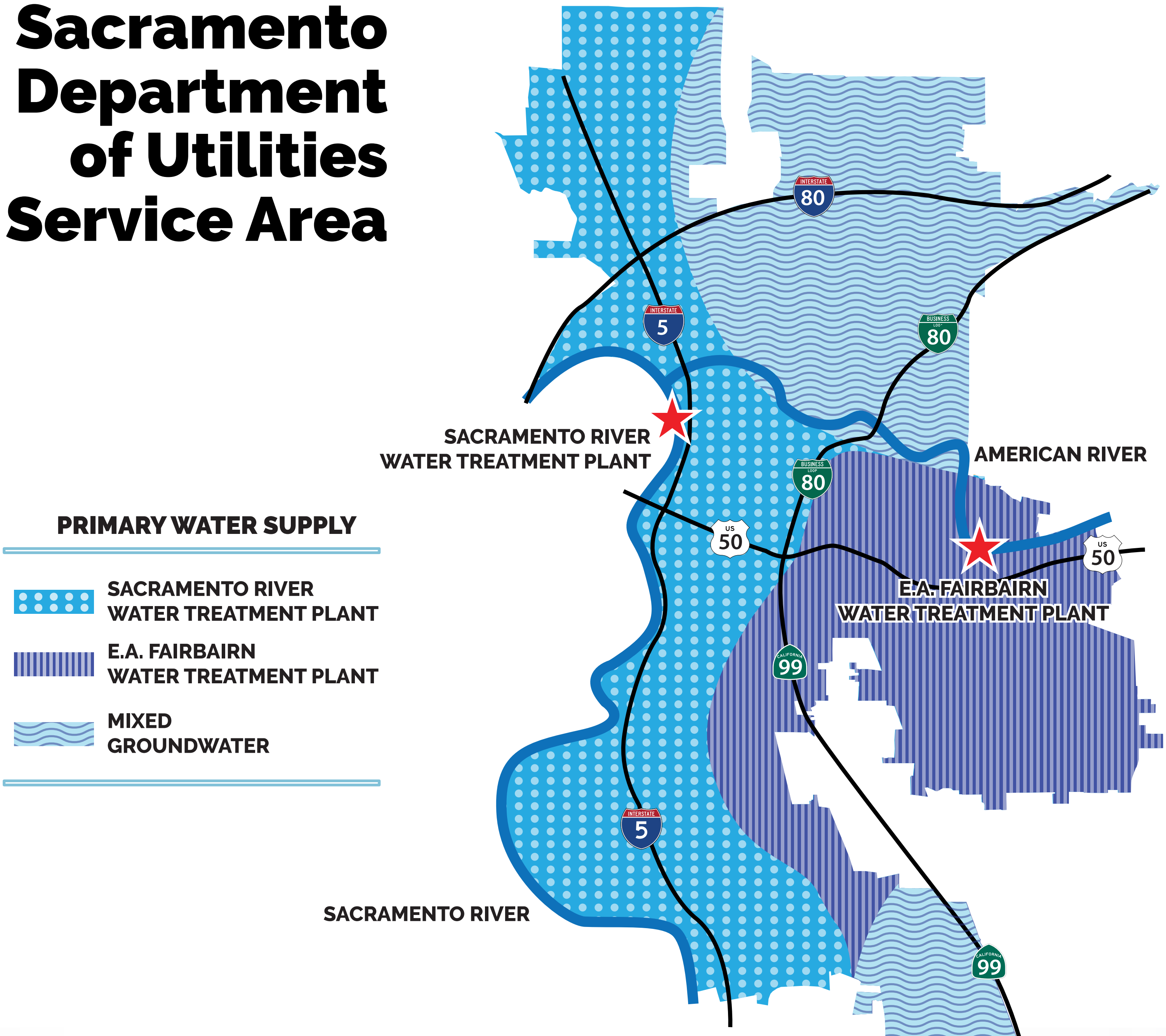
This report, published on June 3, 2024, summarizes detected water quality results for the period of January 1 to December 31, 2023 and may include earlier monitoring data.

The City is committed to providing customers with up-to-date information on their drinking water. For more detailed information, visit **www.sacramentowaterquality.com**

WATER EFFICIENCY

Water efficiency is a way of life in California, and the City of Sacramento continues to encourage water conservation. Find tips to save water and available rebates at **www.sacwaterwise.com**

City of Sacramento Department of Utilities Service Area



This map represents sources of water for residents and businesses in the city of Sacramento, and is meant for educational purposes only. Depending on factors, such as water supply, demand, and time of year, individual residents or businesses could receive water from a mixture of City of Sacramento water sources.

Sources of Water

Eighty percent of the City of Sacramento's water supply comes from the American and Sacramento rivers, and about 20 percent comes from groundwater wells. For more information on sources of water, see the "Source Water Assessment" on page 03.

Source Water Assessment

A watershed sanitary survey evaluates source water quality and potential watershed contaminant sources to provide information that helps maintain and improve source water protection, the first barrier in protecting public health. An evaluation of water treatment plant capabilities and treated water quality provides an assessment of the ability of a water utility to treat their source water.

Initial reports for the Sacramento River and American River water sources were completed in 2000 and 2001. These reports indicated that both rivers are vulnerable to contaminants from recreational activities and that the Sacramento River is also vulnerable to agricultural contaminants. The City of Sacramento, in partnership with several other water utilities, complete Watershed Sanitary Survey updates of the river water sources every five years. These updates were most recently completed in 2020 and 2023 for the Sacramento and American rivers, respectively.

An assessment of the City's groundwater wells was completed in January 2001. Due to their proximity to potential contaminant sources, the wells north of the American River are considered vulnerable to sewage collection systems, leaking underground storage tanks, known contaminants, agricultural drainage, gas stations, dry cleaners, metal plating and chemical processing storage facilities, electrical/electronic manufacturing, and automobile repair and body shops. Wells south of the American River are considered vulnerable to leaking underground storage tanks and sewage collection systems.

Despite these potential vulnerabilities, your water continues to meet or exceed all state and federal drinking water standards. Please call 916-808-5454 to request a summary of the assessments or make an appointment for an in-person viewing.

Required Disclosures for Drinking Water Consumers

This information is presented to further educate consumers about drinking water 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 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.

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 amount of certain contaminants in water provided by public water systems. State Water Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

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).

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).

Water Quality Analysis Results For 2023

Your water meets or exceeds all federal and state drinking water standards.

- The City of Sacramento tests for more than 100 substances; however, this report only lists those detected at or above the federal or state level for reporting.
- Per the State, some contaminants may be monitored less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

1 Regulated for Public Health (Primary Drinking Water Standard)

Regulated for Public Health (Primary Drinking Water Standard)

	Constituent (Unit)	Highest Amount Allowed MCL, MRDL or TT	State or Federal Goal PHG, MCLG or MRDLG	Year Monitored	System Average	PRIMARY WATER SUPPLY			Typical Sources in Drinking Water
						E.A. Fairbairn Water Treatment Plant (American River)	Sacramento River Water Treatment Plant	City of Sacramento Groundwater	
DISINFECTION and DBPs	Chlorine as Cl2 (mg/L)	4	4	2023	0.7	ND – 1.3 [A]			Drinking water disinfectant added for treatment
	Haloacetic Acids (µg/L)	60	NA	2023	45 [B]	5.5 – 53 [B]			By-product of drinking water disinfection
	Trihalomethanes (µg/L)	80	NA	2023	68 [B]	10 – 74 [B]			By-product of drinking water disinfection
	Control of DBP Precursors - TOC (mg/L)	2.0	NA	2023	NA	1.8 [C]	1.5 [C]	NA	Various natural and man-made sources
INORGANIC COMPOUNDS	Arsenic (µg/L)	10	0.004	2023	2.7	ND	ND	2.3 – 4.6	Erosion of natural deposits
	Barium (mg/L)	1	2	2023	ND	ND	ND	ND – 0.2	Erosion of natural deposits
	Copper (mg/L)	1.3 [AL]	0.3	2023	0.06	56 samples collected; 0 individual samples exceeded AL; 90th percentile concentration: 0.06 (Less than AL, meets requirement)			Internal corrosion of household water plumbing systems
	Fluoride in source water (mg/L) [D]	2.0	1	2023	ND	ND	ND	ND – 0.1	Erosion of natural deposits
	Fluoride in treated water (mg/L) [D]	2.0	1	2023	0.7	0.0 – 1.5 [A]			Water additive that promotes strong teeth
	Lead (µg/L)	15 [AL]	0.2	2023	ND	56 samples collected; 0 individual samples exceeded AL; 90th percentile concentration: ND (Less than AL, meets requirement)			Internal corrosion of household water plumbing systems
	Nitrate as Nitrogen (mg/L)	10	10	2023	1.5	ND	ND	ND – 3.7	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
	Selenium (µg/L)	50	30	2023	ND	ND	ND	ND – 5.9	Erosion of natural deposits
RADIO-LOGICAL	Combined Radium (pCi/L)	5	0	2016 - 2023	ND	ND	ND	ND – 4.2	Erosion of natural deposits
	Gross Alpha (pCi/L)	15	0	2016 - 2023	ND	ND	ND	ND – 10	Erosion of natural deposits
	Uranium (pCi/L)	20	0	2016 - 2023	ND	ND	ND	ND – 3.9	Erosion of natural deposits
TREATMENT TECHNIQUE	Turbidity (NTU) [E]	1	NA	2023	NA	0.09	0.24	NA	Soil runoff
	Turbidity (NTU) [E]	at least 95% of samples ≤ 0.3	NA	2023	NA	100%	100%	NA	Soil runoff

(A) Range of all results observed in distribution system; samples with ND chlorine undergo further analysis to ensure water supply safety.

(B) Compliance with MCL confirmed quarterly (every three months); system average shown represents highest locational running annual average calculated during any of the four quarters of 2023 while range represents all results observed in distribution system. Individual results may exceed the MCL as long as the running annual average does not.

(C) Compliance with TT confirmed quarterly (every three months); value shown represents highest running annual average calculated during any of the four quarters of 2023.

(D) In accordance with State law, the City of Sacramento adjusts the natural levels of fluoride in our water supplies to the optimal level determined by the Centers for Disease Control. More information about fluoridation is available at: **www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml**

(E) Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

Units

µg/L	micrograms per liter: unit of concentration, equivalent to 1 part per billion or 1 second in nearly 32 years
µS/cm	microsiemens per centimeter: measure of electrical conductivity
mg/L	milligrams per liter: unit of concentration equivalent to 1 part per million or 1 second in 11.5 years
ng/L	nanograms per liter; unit of concentration equivalent to 1 part per trillion or 1 second in nearly 32,000 years
NTU	Nephelometric Turbidity Units: measures cloudiness of water
pCi/L	picocuries per liter: measures radiation
TON	Theshold Odor Number: The greatest dilution of a sample with odor-free water that yields a detectable odor

Key Terms and Abbreviations

90th Percentile	The value for which 90 percent of samples had a lower result
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow
Constituent	A chemical or parameter measured in the water supply
DBPs	Disinfection By-Products: Substances that can form during a reaction of a disinfectant with naturally present organic matter in the water
Cl_2	Free Chlorine: chlorine available for disinfection
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHG (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
MCLG	Maximum Contaminant Level Goal: 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.
MRDL	Maximum Residual Disinfectant Level: 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.
MRDLG	Maximum Residual Disinfectant Level Goal: The level of 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.
NA	Not applicable
ND	Not detected
PDWS	Primary Drinking Water Standard: MCLs, MRDLs and treatment techniques (TTs) for contaminants that affect health, along with their monitoring and reporting requirements
PHG	Public Health Goal: 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.
TOC	Total Organic Carbon: a measurement of the potential of water to form DBPs
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water

2 Regulated for Drinking Water Aesthetics (Secondary MCL)

Constituent (Unit)	Highest Amount Allowed MCL	Year Monitored	System Average	PRIMARY WATER SUPPLY: E.A. Fairbairn Water Treatment Plant (American River)	PRIMARY WATER SUPPLY: Sacramento River Water Treatment Plant	PRIMARY WATER SUPPLY: City of Sacramento Groundwater	Typical Sources
Chloride (mg/L)	500	2023	33	ND	5.8	19 – 64	Erosion or leaching of natural deposits
Color (units)	15	2023	ND	ND – 5 [A]			Naturally occurring organic materials
Odor (TON)	3	2023	ND	ND – 1.5 [A]			Naturally occurring organic materials
Specific Conductance (μS/cm)	1600	2023	386	66.9	162	310 – 731	Substances that form ions when in water
Sulfate (mg/L)	500	2023	11	4.9	17	5.6 – 35	Erosion or leaching of natural deposits
Total Dissolved Solids (mg/L)	1000	2023	254	40	100	200 – 500	Erosion or leaching of natural deposits
Turbidity (NTU)	5	2023	ND	ND – 4.3 [A]			Soil runoff

(A) Range of all results observed in distribution system.

3 Other Parameters of Interest to Customers / Constituents With No Established MCL

	Constituent (Unit)	Year Monitored	System Average	PRIMARY WATER SUPPLY: E.A. Fairbairn Water Treatment Plant (American River)	PRIMARY WATER SUPPLY: Sacramento River Water Treatment Plant	PRIMARY WATER SUPPLY: City of Sacramento Groundwater
	Calcium (mg/L)	2023	26	8.5	17	18 – 56
	Chromium, Hexavalent (μg/L) [G]	2023	4.4	ND	ND	ND – 7.6
	Hardness (mg/L)	2023	135	26	61	84 – 284
	Hardness (grains per gallon)	2023	7.9	1.5	3.6	4.9 – 17
	Magnesium (mg/L)	2023	17	1.1	4.9	9.7 – 37
	Sodium (mg/L)	2023	24	1.4	6.6	16 – 43
	Total Alkalinity (mg/L)	2023	123	17	49	94 – 230
UCMR4	Manganese (μg/L)	2018 - 2020	2.3	0.8	ND	ND – 17
UCMR4	Total HAA5 (μg/L) [H]	2018 - 2020	24.1	4.2 – 35 [A]		
UCMR4	Total HAA6Br (μg/L) [H]	2018 - 2020	3.4	1.0 – 7.8 [A]		
UCMR4	Total HAA9 (μg/L) [H]	2018 - 2020	27	5.0 – 38 [A]		
UCMR5	Lithium (μg/L)	2023	ND	ND	ND	ND – 22
UCMR5	Perfluorobutanoic acid (ng/L)	2023	ND	ND	ND	ND – 7.4
UCMR5	Perfluorobutanesulfonic acid (ng/L)	2023	ND	ND	ND	ND – 6.2
UCMR5	Perfluoroheptanoic acid (ng/L)	2023	ND	ND	ND	ND – 4.4
UCMR5	Perfluorohexanoic acid (ng/L)	2023	ND	ND	ND	ND – 5.7
UCMR5	Perfluorohexanesulfonic acid (ng/L)	2023	ND	ND	ND	ND – 19
UCMR5	Perfluorooctanoic acid (ng/L)	2023	ND	ND	ND	ND – 17
UCMR5	Perfluorooctanesulfonic acid (ng/L)	2023	ND	ND	ND	ND – 36
UCMR5	Perfluoropentanoic acid (ng/L)	2023	ND	ND	ND	ND – 6.4

(A) Range of all results observed in distribution system.

(G) There was no MCL for hexavalent chromium in effect during 2023; The previous MCL of 10 μg/L was withdrawn on September 11, 2017.

(H) The Unregulated Contaminant Monitoring Rule (UCMR) requires a new list of no more than 30 unregulated contaminants to be monitored by public water systems every five years in order to assist the U.S. Environmental Protection Agency (EPA) in regulatory decisions.

(I) The fourth UCMR required monitoring for Haloacetic Acid groups "HAA5", "HAABr6" and "HAA9", in addition to regulated Haloacetic Acids (HAA5) presented in Table 1. For more information visit **www.epa.gov/sites/default/files/2017-03/documents/ucmr4-fact-sheet-general.pdf**

What You Should Know About...

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 customer service lines and home plumbing. The City of Sacramento is responsible for providing high quality drinking water but cannot control the variety of materials used in customer 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. 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 EPA Safe Drinking Water Hotline 1-800-426-4791 or at **www.epa.gov/lead**

LEAD IN SCHOOLS

The City of Sacramento from 2017 to 2019 provided lead testing to all public schools pre-kindergarten to 12th grade that receive City of Sacramento water, as well as private schools that opted to participate. More than 600 samples were tested from 132 schools, and results were non-detect (less than 5 micrograms per liter) in 97 percent of the samples. All results are publicly available on the State Water Board's website: **www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.html**

CYANOTOXINS

Microcystins and cylindrospermopsin are algal toxins produced by naturally occurring cyanobacteria in surface water sources (such as the American and Sacramento rivers). These compounds are subject to a U.S. EPA Health Advisory and due to their potential presence in our source waters, the City of Sacramento voluntarily monitors for these compounds during certain seasons, typically summer through late fall. There were no detections of microcystins or cylindrospermopsin during routine monitoring in 2023. For more information, visit: **www.epa.gov/habs/epa-drinking-water-health-advisories-cyanotoxins**

EARTHY OR MUSTY TASTE AND ODOR

Some customers may notice an "earthy" taste in City drinking water, most often in late summer. This is due to the presence of geosmin and 2-methylisoborneol, which are odor compounds that are not removed through conventional water treatment. Although these compounds do not affect the safety of the City's drinking water, some customers find the taste and odor to be unpleasant. Chilling the water can help improve the taste.

REVISED TOTAL COLIFORM RULE COMPLIANCE STATUS

The Revised Total Coliform Rule protects public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials, specifically total coliform and E. coli bacteria. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. Additionally, water systems that exceed the E. coli maximum contaminant level are required to issue public notification within 24 hours. On June 21, 2023, one routine sample tested positive for E. coli but repeat samples tested negative for total coliforms (and E. coli), demonstrating that the E. coli maximum contaminant level was not exceeded. The City of Sacramento was in compliance with the rule throughout 2023.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

According to the California State Water Resources Control Board Division of Drinking Water, exposure to per- and polyfluoroalkyl substances (which are known as PFAS) through drinking water has become an increasing concern due to the tendency of PFAS to accumulate in groundwater. PFAS are a large group of human-made chemicals that have been used in waterproof, stain-resistant, or non-stick consumer products. In addition, they have been used in firefighting foam and various industrial processes.

As part of our mission to provide City customers with drinking water of the highest quality, the City of Sacramento is committed to continued monitoring, public notification, and effective management of this emerging water quality issue. For more detailed information, visit: **www.cityofsacramento.gov/utilities/water-quality/frequently-asked-questions/pfas**

TO REPORT A CONCERN

City of Sacramento, Department of Utilities
311 or 916-264-5011
24 hours a day, 7 days a week
www.cityofsacramento.gov/utilities

FOR QUESTIONS ABOUT THIS REPORT, CONTACT:

Rory Hartkemeyer, Program Specialist,
Water Quality Lab
City of Sacramento, Department of Utilities
916-808-3738
rHartkemeyer@cityofsacramento.org

U.S. EPA Safe Drinking Water Hotline
1-800-426-4791
www.epa.gov/ground-water-and-drinking-water

NOTICE OF OPPORTUNITY FOR PUBLIC PARTICIPATION

The Sacramento City Council generally holds public meetings on Tuesdays at 2 p.m. and/or 5 p.m. in the City Council Chambers at 915 I Street, Sacramento, CA 95814. You can access City Council agendas at **www.cityofsacramento.gov/mayor-council**

POTABILITY STATEMENT

The City of Sacramento water supply meets all potability requirements as set forth by the U.S. EPA and the California Safe Drinking Water Act, Title 22. This certification applies to City of Sacramento water that is provided up to the property line, backflow preventer, or water meter (whichever comes first) of water customers within the City of Sacramento service area.

UP-TO-DATE WATER QUALITY INFORMATION IS AVAILABLE AT www.sacramentowaterquality.com

City of SACRAMENTO Utilities

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Peb hais lus Hmoob · Chúng tôi nói tiếng Việt

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse City of Sacramento a 311 para asistirlo en español.

本報告包含閣下飲用水嘅重要訊息。 如需廣東話垂詢，請聯絡 City of Sacramento 1391 35th Avenue, Sacramento CA 95822 / 311。

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 City of Sacramento 以获得中文的帮助: 1391 35th Avenue, Sacramento CA 95822 / 311

這份報告含有關於您的飲用水的重要訊息。請用以下地址和電話聯繫 City of Sacramento 以獲得中文的幫助1391 35th Avenue, Sacramento CA 95822 / 311

Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ City of Sacramento tại 311 để được trợ giúp bằng tiếng

Tsab ntawv no muaj cov ntsiab lus tseem ceeb hais txog koj cov dej haus. Thov hu rau City of Sacramento ntawm 311 yog koj xav tau kev pab hais lus Hmoob.

ਐੱਸ ਰਪਿੋਟ ਵਚਿ ਤੁਵਾੜੇ ਪੀਣੇ ਦੇ ਵਾਰੇ ਮਹੱਤਵਪੂਰਨ ਸੂਚਨਾ ਹੈ l ਪੰਜਾਬੀ ਵਚਿ ਮਦਦ ਲਈ, City of Sacramento ਨੂੰ 1391 35th Avenue, Sacramento CA 95822 ਜਾਂ 311 ਤੇ ਸੰਪਰਕ ਕਰੋ |

Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mang-yaring makipag-ugnayan sa City of Sacramento o tumawag sa 311 para matulungan sa wikang Tagalog.

รายงานฉบับนี้มีข้อมูลที่สำคัญเกี่ยวกับน้ำประปาของท่าน กรุณาติดต่อ City of Sacramento ที่ 311 เพื่อการช่วยเหลือในภาษาไทย

Этот отчет содержит важную информацию о вашей питьевой воде. Пожалуйста, свяжитесь с City of Sacramento по 311 для получения помощи на русском языке.

इस रपिोर्ट में आपके पीने के जल से सम्बंधति महत्वपूर्ण जानकारी है l हदिी में सहायता के लिए, City of Sacramento को 1391 35th Avenue, Sacramento CA 95822 अथवा 311 पर संपर्क करें l

この報告書には上水道に関する重要な情報が記されております。
ご質問等ございましたら、City of Sacramento, 311 まで日本語でご連絡下さい。

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City of
SACRAMENTO
Department of Utilities

2024 CONSUMER CONFIDENCE REPORT

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The City is committed to providing customers with up-to-date information on their drinking water.

The latest water quality information is available at www.sacramentowaterquality.com.

SOURCES OF WATER

About 80 percent of the City of Sacramento's water supply comes from the American and Sacramento rivers, and about 20 percent comes from groundwater wells.

For more information on sources of water see the next section, called "Source Water Assessment."

SOURCE WATER ASSESSMENT

A watershed sanitary survey evaluates source water quality and potential watershed contaminant sources to provide information which helps maintain and improve source water protection, the first barrier in protecting public health. An evaluation of water treatment plant capabilities and treated water quality provides an assessment of the ability of a water utility to treat their source water.

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Despite these potential vulnerabilities, your water continues to meet or exceed all state and federal drinking water standards.

Call 916-808-5454 to request a summary of the assessments or make an appointment for an in-person viewing.

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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).

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).

GUIDE TO WATER QUALITY ANALYSIS RESULTS

CONSUMER CONFIDENCE REPORT TABLES

TABLE 1	Regulated for Public Health Primary Drinking Water Standard
TABLE 2	Regulated for Drinking Water Aesthetics Secondary MCL
TABLE 3	Other Parameters of Interest to Customers Constituents With No Established MCL

UNITS OF DRINKING WATER QUALITY MEASUREMENT

µg/L	micrograms per liter: unit of concentration, equivalent to 1 part per billion or 1 second in nearly 32 years
µS/cm	microsiemens per centimeter: measure of electrical conductivity
mg/L	milligrams per liter: unit of concentration equivalent to 1 part per million or 1 second in 11.5 days
ng/L	nanograms per liter; unit of concentration equivalent to 1 part per trillion or 1 second in nearly 32,000 years
NTU	Nephelometric Turbidity Units: measures cloudiness of water
pCi/L	picocuries per liter: measures radiation
TON	Theshold Odor Number: The greatest dilution of a sample with odor-free water that yields a detectable odor

KEY TERMS USED IN TABLES

90th Percentile	The value for which 90 percent of samples had a lower result
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow
Constituent	A chemical or parameter measured in the water supply
DBPs	Disinfection By-Products: Substances that can form during a reaction of a disinfectant with naturally present organic matter in the water
Cl_2	Chlorine added for disinfection
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHG (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water
MCLG	Maximum Contaminant Level Goal: 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
MRDL	Maximum Residual Disinfectant Level: 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
MRDLG	Maximum Residual Disinfectant Level Goal: The level of 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
NA	Not applicable
ND	Not detected
PDWS	Primary Drinking Water Standard: MCLs, MRDLs and treatment techniques (TTs) for contaminants that affect health, along with their monitoring and reporting requirements
PHG	Public Health Goal: 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
TOC	Total Organic Carbon: Natural and man-made material that reacts with disinfectants to form disinfection byproducts
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water

WATER QUALITY ANALYSIS RESULTS FOR 2024

Your water meets or exceeds all federal and state drinking water standards.

•The City of Sacramento tests for more than 100 substances; however, this report only lists those detected at or above the federal

•Per the State, some contaminants may be monitored less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

I Regulated for Public Health

Primary Drinking Water Standard (PDWS)

	Constituent (Unit)	Highest Amount Allowed MCL, MRDL or TT	State or Federal Goal PHG, MCLG or MRDLG	Year Monitored	System Average	E.A. Fairbairn Water Treatment Plant (American River)	Sacramento River Water Treatment Plant	City of Sacramento Groundwater	Typical Sources in drinking water
DISINFECTION and DBPs	Chlorine as Cl_2 (mg/L)	4	4	2024	0.8	0.2 - 1.4 a			Drinking water disinfectant added for treatment
	Haloacetic Acids (µg/L)	60	NA	2024	38 b	16 - 47 b			By-product of drinking water disinfection
	Trihalomethanes (µg/L)	80	NA	2024	63 b	32 - 74 b			By-product of drinking water disinfection
	Control of DBP Precursors - TOC (mg/L)	2.0	NA	2024	NA	1.3 c	1.9 c	NA	Various natural and man-made sources
INORGANIC COMPOUNDS	Arsenic (µg/L)	10	0.004	2023 - 2024	2.3	ND	ND	ND - 4.3	Erosion of natural deposits
	Barium (mg/L)	1	2	2023 - 2024	ND	ND	ND	ND - 0.2	Erosion of natural deposits
	Chromium, hexavalent (µg/L)	10	0.02	2023 - 2024	4.7	ND	ND	ND - 7.6	Erosion of natural deposits
	Copper (mg/L)	1.3 [AL]	0.3	2023	0.06	56 samples collected; 0 individual samples exceeded AL; 90th percentile concentration: 0.06 (Less than AL, meets requirement)			Internal corrosion of household water plumbing systems
	Fluoride in source water (mg/L) d	2.0	1	2024	ND	ND	ND	ND - 0.4	Erosion of natural deposits
	Fluoride in treated water (mg/L) d	2.0	1	2024	0.7	0.2 - 1.0 a			Water additive that promotes strong teeth
	Lead (µg/L)	15 [AL]	0.2	2023	ND	56 samples collected; 0 individual samples exceeded AL; 90th percentile concentration: ND (Less than AL, meets requirement)			Internal corrosion of household water plumbing systems
	Nitrate as Nitrogen (mg/L)	10	10	2024	1.9	ND	ND	ND - 4.1	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
	Selenium (µg/L)	50	30	2023 - 2024	ND	ND	ND	ND - 5.9	Erosion of natural deposits
RADIO-LOGICAL	Combined Radium (pCi/L)	5	0	2016 - 2024	ND	ND	ND	ND - 4.2	Erosion of natural deposits
	Gross Alpha (pCi/L)	15	0	2016 - 2024	ND	ND	ND	ND - 10.2	Erosion of natural deposits
	Uranium (pCi/L)	20	0	2016 - 2024	ND	ND	ND	ND - 4.5	Erosion of natural deposits
TREATMENT TECHNIQUE	Turbidity (NTU) e	1	NA	2024	NA	0.08	0.09	NA	Soil runoff
	Turbidity (NTU) e	at least 95% of samples 0.3	NA	2024	NA	100%	100%	NA	Soil runoff

FOOTNOTES

a) Range of all results observed in distribution system.

b) Compliance with MCL confirmed quarterly (every three months); system average shown represents highest locational running annual average calculated during any of the four quarters of 2024 while range represents all results observed in distribution system. Individual results may exceed the MCL as long as the running annual average does not.

c) Compliance with TT confirmed quarterly (every three months); value shown represents highest running annual average calculated during any of the four quarters of 2024.

d) In accordance with State law, the City of Sacramento adjusts the natural levels of fluoride in our water supplies to the optimal level determined by the Centers for Disease Control. More information about fluoridation is available at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml

e) Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

2 Regulated for Drinking Water Aesthetics *Secondary MCL*

Constituent (Unit)	Highest Amount Allowed MCL	Year Monitored	System Average	E.A. Fairbairn Water Treatment Plant (American River)	Sacramento River Water Treatment Plant	City of Sacramento Groundwater	Typical Sources
Chloride (mg/L)	500	2023 - 2024	35	ND	5.8	19 - 64	Erosion or leaching of natural deposits
Color (units)	15	2023 - 2024	ND	ND - 1 a			Naturally occurring organic materials
Odor (TON)	3	2024	ND	ND - 1.5 a			Naturally occurring organic materials
Specific Conductance (µS/cm)	1600	2023 - 2024	411	66.9	162	310 - 731	Substances that form ions when in water
Sulfate (mg/L)	500	2023 - 2024	12	5.8	12	5.6 - 34	Erosion or leaching of natural deposits
Total Dissolved Solids (mg/L)	1000	2023 - 2024	276	57	92	200 - 500	Erosion or leaching of natural deposits
Turbidity (NTU)	5	2024	0.11	ND - 0.6 a			Soil runoff

3 Other Parameters of Interest to Customers / Constituents With No Established MCL

	Constituent (Unit)	Year Monitored	System Average	E.A. Fairbairn Water Treatment Plant (American	Sacramento River Water Treatment Plant	City of Sacramento Groundwater
	Calcium (mg/L)	2023 - 2024	27	9.7	14	4.1 - 56
	Hardness (mg/L)	2023 - 2024	138	29	53	15 - 284
	Hardness (grains per gallon)	2023 - 2024	8.1	1.7	3.1	0.9 - 17
	Magnesium (mg/L)	2023 - 2024	18	1.7	4.4	1.1 - 44
	Sodium (mg/L)	2023 - 2024	28	2.2	5.8	18 - 74
	Total Alkalinity (mg/L)	2023 - 2024	132	25	47	94 - 230
UCMR4	Manganese (µg/L)	2018 - 2020	ND	0.5 - 1.3	ND - 0.7	ND - 0.4
UCMR4	Total HAA5 (µg/L) f	2018 - 2020	24.1	4.2 - 35 a		
UCMR4	Total HAA6Br (µg/L) f	2018 - 2020	3.4	1.0 - 7.8 a		
UCMR4	Total HAA9 (µg/L) f	2018 - 2020	27	5.0 - 38 a		
UCMR5	Lithium (µg/L)	2023 - 2024	ND	ND	ND	ND - 25.4
UCMR5	Perfluorohexane sulfonic acid [PFHxS] (ng/L)	2023 - 2024	ND	ND	ND	ND - 3.7
UCMR5	Perfluoropentanoic acid [PFPeA] (ng/L)	2023 - 2024	ND	ND	ND	ND - 3.1

FOOTNOTES

a) Range of all results observed in Distribution system

f) The Fourth UCMR required monitoring for several unregulated Haloacetic Acid compounds in addition to the regulated HAA5 presented in Table 1

WHAT YOU SHOULD KNOW ABOUT…

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 customer service lines and home plumbing. The City of Sacramento is responsible for providing high quality drinking water, but cannot control the variety of materials used in customer 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. 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 EPA Safe Drinking Water Hotline 1-800-426-4791 or at http://www.epa.gov/lead.

LEAD SERVICE LINE INVENTORY

The City in 2024 completed a systemwide service line inventory as required by the 2021 Federal Lead and Copper Rule Revisions. With the completion of the systemwide service inventory, the City has confirmed that there are no lead service lines or galvanized service lines requiring replacement within the City's service area.

For more information and to learn about the status of your water service line, visit https://www.cityofsacramento.gov/utilities/water-quality/frequently-asked-questions/lead.

LEAD IN SCHOOLS

The City of Sacramento from 2017 to 2019 provided lead testing to all public schools pre-kindergarten to 12th grade that receive City of Sacramento water, as well as private schools that opted to participate. More than 600 samples were tested from 132 schools and results were non-detect (less than 5 micrograms per liter) in 97 percent of the samples.

All results are publicly available on the State Water Board's website: www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.html

CYANOTOXINS

Microcystins and cylindrospermopsin are algal toxins produced by naturally occurring cyanobacteria in surface water sources (such as the American and Sacramento rivers). These compounds are subject to a U.S. EPA Health Advisory and due to their potential presence in our source waters, the City of Sacramento voluntarily monitors for these compounds during certain seasons, typically summer through late fall. There were no detections of microcystins or cylindrospermopsin during routine monitoring in 2024.

EARTHY OR MUSTY TASTE AND ODOR

Some customers may notice an "earthy" taste in City drinking water, most often in late summer. This is due to the presence of geosmin and 2-methylisoborneol, which are odor compounds that are not removed through conventional water treatment. Although these compounds do not impact the safety of the City's drinking water, some customers find the taste and odor to be unpleasant. Chilling the water can help improve the taste.

REVISED TOTAL COLIFORM RULE COMPLIANCE STATUS

The Revised Total Coliform Rule protects public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials, specifically, total coliform and E. coli bacteria. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. Additionally, water systems that exceed the E. Coli maximum contaminant level are required to issue public notification within 24 hours. **The City of Sacramento was in compliance with the Revised Total Coliform Rule throughout 2024.**

PER- AND POLYFLUOROALKYL SUBSTANCES

According to the California State Water Resources Control Board Division of Drinking Water, exposure to per- and polyfluoroalkyl substances – which are known as PFAS – through drinking water has become an increasing concern due to the tendency of PFAS to accumulate in groundwater. PFAS are a large group of human-made chemicals that have been used in waterproof, stain-resistant, or non-stick consumer products. In addition, they have been used in firefighting foam and various industrial processes.

As part of our mission to provide City customers with drinking water of the highest quality, the City of Sacramento is committed to continued monitoring, public notification, and effective management of this emerging water quality issue.

For more detailed information, visit: http://www.cityofsacramento.gov/utilities/water-quality/frequently-asked-questions/pfas

CONTACT US

TO REPORT A CONCERN

City of Sacramento, Department of Utilities
311 or 916-264-5011
24 hours a day, 7 days a week
www.cityofsacramento.gov/utilities

FOR QUESTIONS ABOUT THIS REPORT

Rory Hartkemeyer, Program Specialist, Water Quality Lab
City of Sacramento, Department of Utilities
916-808-3738
rHartkemeyer@cityofsacramento.org

U.S. EPA Safe Drinking Water Hotline
1-800-426-4791
www.epa.gov/ground-water-and-drinking-water

NOTICE OF OPPORTUNITY FOR PUBLIC PARTICIPATION

The Sacramento City Council generally holds public meetings on Tuesday at 2 p.m. and / or 5 p.m. in the City Council Chambers at 915 I Street, Sacramento, CA 95814. You can access City Council agendas at www.cityofsacramento.gov/mayor-council.

POTABILITY STATEMENT

The City of Sacramento water supply meets all potability requirements as set forth by the U.S. EPA and the California Safe Drinking Water Act, Title 22. This certification relates to City of Sacramento water that is provided up to the property line or backflow preventer, whichever comes first.

UP-TO-DATE WATER QUALITY INFORMATION IS AVAILABLE AT www.sacramentowaterquality.com

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse City of Sacramento a 311 para asistirlo en español.

本報告包含閣下飲用水嘅重要訊息。 如需廣東話垂詢，請聯絡 City of Sacramento 1395 35th Avenue, Sacramento CA 95822 / 311。

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 City of Sacramento 以获得中文的帮助: 1395 35th Avenue, Sacramento CA 95822 / 311

這份報告含有關於您的飲用水的重要訊息。請用以下地址和電話聯繫 City of Sacramento 以獲得中文的幫助1395 35th Avenue, Sacramento CA 95822 / 311

Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ City of Sacramento tại 311 để được trợ giúp bằng tiếng

Tsab ntawv no muaj cov ntsiab lus tseem ceeb hais txog koj cov dej haus. Thov hu rau City of Sacramento ntawm 311 yog koj xav tau kev pab hais lus Hmoob.

ਐੱਸ ਰਿਪੋਟ ਵਿਚ ਤੁਵਾੜੇ ਪੀਣੇ ਦੇ ਵਾਰੇ ਮਹੱਤਵਪੂਰਨ ਸੂਚਨਾ ਹੈ। ਪੰਜਾਬੀ ਵਿਚ ਮਦਦ ਲਈ, City of Sacramento ਨੂੰ 1395 35th Avenue, Sacramento CA 95822 ਜਾਂ 311 ਤੇ ਸੰਪਰਕ ਕਰੋ |

Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa City of Sacramento o tumawag sa 311 para matulungan sa wikang Tagalog.

รายงานฉบับนี้มีข้อมูลที่สำคัญเกี่ยวกับน้ำประปาของท่าน
กรุณาติดต่อ City of Sacramento ที่ 311 เพื่อการช่วยเหลือในภาษาไทย

Этот отчет содержит важную информацию о вашей питьевой воде. Пожалуйста, свяжитесь с City of Sacramento по 311 для получения помощи на русском языке.

इस रिपोर्ट में आपके पीने के जल से सम्बंधित महत्वपूर्ण जानकारी है।
हिंदी में सहायता के लिए, City of Sacramento को 1395 35th Avenue, Sacramento CA 95822 अथवा 311 पर संपर्क करें।

この報告書には上水道に関する重要な情報が記されております。
ご質問等ございましたら、City of Sacramento, 311 まで日本語でご連絡下さい。