Public Health Goals Report

City of Pomona

July 2025

Background

Provisions of the California Health and Safety Code 116470 (b) specify that water utilities with 10,000 or more service connections are required to prepare a special report by July 1, 2025, if water quality measurements have exceeded any Public Health Goals (PHGs). PHGs are non-enforceable goals established by the California Environmental Protection Agency's (Cal-EPA) Office of Environmental Health Hazard Assessment (OEHHA). The law also requires that where OEHHA has not adopted a PHG for a constituent, the water suppliers are to use the Maximum Contaminant Level Goals (MCLGs) adopted by United States Environmental Protection Agency (USEPA). Only constituents which have a California primary drinking water standard, also known as Maximum Contaminant Level (MCL), and for which either a PHG or MCLG has been set are to be addressed.

This report provides information required by law of constituents detected in the City's water supply between 2022 through 2024 at levels exceeding the applicable PHG or MCLG. Included is the numerical public health risk associated with the MCL and the PHG or MCLG, the category or type of risk to health that could be associated with the constituent, the best treatment technology available that could be used to reduce the constituent level, and an estimate of the cost to install that treatment, if it is appropriate and feasible.

What Are PHGs?

PHGs are set by the OEHHA and are based solely on public health risk considerations. None of the practical risk-management factors that are considered by the USEPA or CA State Water Resources Control Board's Division of Drinking Water (SWRCB-DDW) in setting drinking water standards (MCLs) are considered in setting the PHGs. These factors include analytical detection capability, treatment technology available, benefits and costs. The PHGs are not enforceable and are not required to be met by any public water system. MCLGs are the federal equivalent to PHGs and should not be confused with MCLs which are enforceable.

Water Quality Data Considered

All of the water quality data collected by our water system between 2022 and 2024 for purposes of determining compliance with drinking water standards was considered. This data was summarized in our 2022, 2023, and 2024 Consumer Confidence Reports, which have been made available to our customers, with the most recent one, posted on July 1, 2025.

Guidelines Followed

The Association of California Water Agencies (ACWA) formed a workgroup which prepared guidelines for water utilities to use in preparing these required reports and those guidelines were used in the preparation of this report.

Best Available Technology (BATs) and Cost Estimates:

Both the USEPA and SWRCB DDW adopt what are known as Best Available Technologies, or BATs, which are the best known methods of reducing contaminant levels to the MCL. Costs can be estimated for such technologies. However, since many PHGs and all MCLGs are set much lower than the MCLs, it is not always possible or feasible to determine what treatment is needed to further reduce a constituent downward to or near the PHG or MCLG, many of which are set at zero. Estimating the costs to reduce a constituent to zero is difficult, if not impossible because it is not possible to verify by analytical means that the level has been reduced to zero. In some cases, installing treatment to try and further reduce very low levels of one constituent may have adverse effects on other aspects of water quality.

Constituents Detected That Exceed a PHG or a MCLG:

The following is a discussion of constituents that were detected in one or more of our drinking water sources at levels above the PHG, or if no PHG, above the MCLG.

Arsenic:

The PHG for arsenic is 0.004 parts per billion (ppb). The MCL or State drinking water standard is 10 ppb. California's Detection Limit for Purposes of Reporting (DLR) is 2 ppb. Any data below the State's DLR is considered "non-detect" (ND) or (less than the DLR of 2 ppb).

From 2022 through 2024, both Pomona sources and purchased water from sources had detections of arsenic above the PHG. The levels of arsenic detected in Pomona sources ranged from ND to 3.8 ppb, and the average was 0.11 ppb. Purchased water from Metropolitan Water District of Southern California (MWD) sources ranged from ND to 3.1 ppb, and the average was 0.26 ppb. The levels detected were below the MCL at all times.

The numerical health risk is one person in a million at the PHG level and 2.5 persons in a thousand at the MCL level. The category health risk associated with arsenic is an increased risk of getting cancer. The EPA recommends various treatment methods for the removal of arsenic. The BATs for removing arsenic are adsorption media, ion exchange, coagulation/filtration, and reverse osmosis. It is unknown whether these technologies can reduce arsenic levels to the PHG level, and if so, what the cost may be. Ion Exchange (IX) would likely be the method required to lower the arsenic levels. The estimated cost to install and operate such a treatment system that can treat up to 1,500 gallons per minute (GPM) would be approximately $464,000 per year, or an increased cost of $ 3.10 per person per year. This does not include costs of energy, operation and maintenance of wells, boosters, and related pumping equipment.

Hexavalent Chromium

The PHG for Hexavalent Chromium (Cr6) is .02 ppb. The MCL or State drinking water standard for Cr6 is 10 ppb. The MCL rulemaking became effective October 1, 2024. The MCL Compliance date for Cr6 October 1, 2026. The typical sources of Cr6 are discharges from industrial waste

factories and erosion of natural deposits. From 2022 through 2024, the levels of Cr6 detected ranged from non-detect (<1.0 ppb) to 12 ppb, and the average was 2.6 ppb. There were detections exceeding the PHG. There were detections exceeding the MCL rulemaking. After October 21, 2024, Treatment Techniques (TT) were applied to further reduce the Hexavalent Chromium levels to meet the current MCL.

The numerical health risk for Cr6 at the PHG of .02 ppb is one person in a million. The numerical health risk at the MCL of 10 ppb is five persons in ten thousand. The category of health risk associated with Cr6, and the reason that a drinking water standard was adopted for it, is that Cr6 is carcinogenic. People who drink water containing Cr6 in excess of the MCL over many years may have an increased risk of getting cancer. SWRCB DDW states that "drinking water which meets this standard (the MCL) is associated with little to none of this risk and should be considered safe with respect to Cr6."

The BATs for treatment/removal of chromium are coagulation/filtration, ion exchange, lime softening, and reverse osmosis. The estimated cost to install and operate an ion exchange treatment system that will reliably reduce the Cr6 concentration to the PHG is approximately $464,000 per 1,500 GPM treated. This would result in an assumed increased cost of $3.10 per person per year.

Perchlorate

The PHG for perchlorate is 1 part per billion (ppb). The MCL or State drinking water standard is is 6 ppb. California's Detection Limit for Purposes of Reporting (DLR) is 1 ppb. Any data below the State's DLR is considered "non-detect" (ND) or (less than the DLR of 1 ppb).

From 2022 through 2024, Pomona sources of water had detections of perchlorate above the PHG. The levels of perchlorate detected in Pomona sources ranged from ND to 5.0 ppb, and the average was 1.1 ppb. Purchased water from Metropolitan Water District of Southern California (MWD) had no detections of perchlorate above the PHG. The levels detected were below the MCL at all times.

The category of health risk for perchlorate is endocrine toxicity (affects the thyroid) and developmental toxicity (causes neurodevelopmental deficits). There are no established PHG or MCL's based on cancer health risks associated with perchlorate. Since perchlorate is non-carcinogenic, a cancer risk or health risk could not be calculated by OEHHA for this chemical. The PHG for perchlorate was established by OEHHA at a level which is believed to be without any significant public health risk to individuals exposed to that chemical over a lifetime, as it is considered non-carcinogenic.

The BAT for the removal of perchlorate is ion exchange and biological fluidized bed reactor. The estimated cost to install and operate an ion exchange treatment system that can treat 1,000-1,500 GPM would be approximately $464,000 per year, or an increased cost of $3.10 per person per year. This does not include costs of energy, operation and maintenance of wells, boosters, and related pumping equipment.

Radionuclides:

There are two radioactive contaminants that were detected above the PHG/MCLG level. The two contaminants are Radium-228 (Ra-228), and uranium and each have a MCLG of zero. Uranium has a PHG set at 0.43 picocuries per Liter (pCi/L). Samples collected from Pomona sources between 2022 and 2024 detected Ra-228, and uranium levels above the PHG/MCLG. Corresponding PHGs were not developed for gross alpha and beta particles. Three radionuclide contaminants were detected above the PHG/MCLG in water purchased from MWD. All radionuclide detections from Pomona sources as well as MWD were below their applicable MCL. Please note that not all sources in Pomona and MWD were due for sampling radionuclides in 2022 through 2024. Results are from 2024. The data reported is not representative of weighted average data for the system.

- Gross alpha radioactivity is a measurement of all alpha activity emitted from radioactive elements that are naturally present. Gross alpha has an MCL of 15 pCi/L. Levels of gross alpha from Pomona was non-detect. Gross alpha radioactivity from MWD was non-detect.

- Levels of gross beta from Pomona sources were not due during this Period. Imported water from MWD detected levels ranging from ND to 7 pCi/L with an average of 4.27 pCi/L.

- Radium-228 (RA-228) measures radioisotopes that emit beta and photon particles. The PHG for RA-228 is 0.019 picocuries per liter (pCi/L). The MCL for combined Ra-226 + Ra-228 is 5pCi/L. There is no MCL for RA-228 itself. California's Detection Limit for Purposes of Reporting (DLR) is 1 pCi/L. RA-226 results were ND for Pomona sources. The levels of Ra-228 detected in Pomona sources ranged from ND to 0.68 pCi/L, and the average was 0.34 pCi/L. Pomona's results are considered ND. Purchased water from Metropolitan Water District of Southern California (MWD) ranged from ND to 2.1 pCi/L, and the average was 0.29 pCi/L for Ra-228. The levels detected were below the MCL at all times.

- The MCL or State drinking water standard for uranium is 20 pCi/L. Uranium was detected in Pomona sources at levels ranging from 1.57 pCi/L to 2.15 pCi/L with an average of 1.9 pCi/L. Purchased water had detections ranging from non-detect to 3.4 pCi/L with an average of 1.12 pCi/L.

People who drink water containing radionuclides in excess of their MCL over many years may have an increased risk of getting cancer. In addition, exposure to uranium in drinking water may cause toxic effects to the kidney. The numerical health risk for gross alpha at the MCLG level is zero and the risk associated with the MCL is one excess case of cancer in one thousand people over a long period of time for the most potent alpha emitter. For gross beta, the health risk associated with the MCLG is 0 and the risk associated with the MCL is two additional cases of cancer in one thousand people over a long period of time for the most potent beta emitter. The numerical health risk for uranium at the PHG level is one person in a million and at the MCL is 5 persons per hundred thousand.

Radionuclides are removed by the same treatment technology. Treatment to remove Gross alpha, will also remove gross beta and uranium. The BATs for the removal of radionuclides are ion exchange, manganese greensand filters, and reverse osmosis. The recommended treatment option to reduce radionuclides would be to combine both ion exchange and reverse osmosis. This is done to reduce loading from contaminants and ensure residual management. The use of ion exchange does involve additional costs for the treatment and disposal of the used resin. The estimated cost to install and operate such a treatment system would be $464,000 per year, or an increased cost of $ 3.10 per person. This does not include costs of energy, operation and maintenance of wells, boosters, and related pumping equipment.

Tetrachloroethylene (PCE):

The PHG for tetrachloroethylene (PCE) is 0.06 parts per billion (ppb). The MCL or State drinking water standard for PCE is 5 ppb. From 2022 through 2024, the level of PCE detected in Pomona sources ranged from non-detect (below 0.5 ppb) to 2.9 ppb, and the average was 0.50 ppb. Purchased water from MWD had no detections of PCE.

There was no exceedance of the MCL.

The category of health risk associated with PCE, and the reason that a drinking water standard was adopted for it, is that people who drink water containing PCE in excess of the MCL over many years may have an increased risk of getting cancer. SWRCB DDW states that "drinking water that meets this standard (the MCL) is associated with little to none of this risk and should be considered safe with respect to PCE." The numerical health risk for PCE at the PHG is one person in one million. The numerical health risk at the MCL is eight persons in a hundred thousand.

The BATs to lower levels of PCE is either GAC or packed tower aeration (PTA). GAC with long empty bed contact time would likely be required to attempt to lower the PCE level below 0.06 ppb. The estimated cost to install and operate such a treatment system that would reliably reduce the PCE level to zero would be estimated at approximately $420,000 per year, or an increased cost of $2.80 for each person per year. This includes annualized capital, operating and maintenance costs for treatment alone. This does not include costs of energy, operation and maintenance of wells, boosters, and related pumping equipment.

Perfluorooctanoic Acid (PFOA)

The PHG for perfluorooctanoic acid (PFOA) is 0.007 parts per trillion (ppt). The Federal MCL rulemaking was effective April 10, 2024. The MCL for PFOA is 4 ppt. The MCLG for PFOA is zero.

From 2022 through 2024, both Pomona sources and purchased water from sources had detections of PFOA above the PHG. The levels of PFOA detected in Pomona sources ranged from ND to 7.3 ppt, and the average was 0.6 ppt. Purchased water from Metropolitan Water District of Southern California (MWD) sources ranged from ND to 4.7 ppt, and the average was 0.4 ppt.

The category of health risk for PFOA is carcinogenicity. The numerical health risk at the PHG is 1x10-6, which means one excess case of cancer per one million people.

BATs for treatment/removal of PFOA are granular-activated carbon (GAC) or packed tower aeration. The estimated cost to install and operate a treatment system will reliably reduce the PFOA concentration to the PHG is approximately $420,000 /1,500 gallons treated. This would result in an assumed increased cost of $2.80 for each person every per year.

Perfluorooctane Sulfonate (PFOS)

The PHG for perfluorooctane sulfonate (PFOS) is 1 parts per trillion (ppt). The Federal MCL rulemaking was effective April 10, 2024. The MCL for PFOS is 4 ppt. The MCLG for PFOS is zero.

From 2022 through 2024, both Pomona sources and purchased water from sources had detections of PFOS above the PHG. The levels of PFOS detected in Pomona sources ranged from ND to 18 ppt, and the average was 1.3 ppt. Purchased water from Metropolitan Water District of Southern California (MWD) sources ranged from ND to 3.4 ppt, and the average was 0.2 ppt.

The category of health risk for PFOS is carcinogenicity. The numerical health risk at the PHG is 1x10-6, which means one excess case of cancer per one million people.

BATs for treatment/removal of PFOS are granular-activated carbon (GAC) or packed tower aeration. The estimated cost to install and operate a treatment system will reliably reduce the PFOS concentration to the PHG is approximately $420,000/1,500 gallons treated. This would result in an assumed increased cost of $2.80 per year for each person every year.

Total Trihalomethanes (TTHMs)

TTHMs are the sum of bromodichloromethane, bromoform, chloroform, and dibromochloromethane. The MCL for TTHM is 80 ppb. There are no MCLs set for individual trihalomethanes. From 2022 through 2024, Pomona sources of water had detections of bromodichloromethane, bromoform, chloroform, and dibromochloromethane above each individual PHG.

Based on 80 ppb bromodichloromethane; the risk will vary with different combinations and ratios of the other trihalomethanes in a particular sample. Based on 80 ppb bromoform; the risk will vary with different combinations and ratios of the other trihalomethanes in a particular sample. Based on 80 ppb chloroform; the risk will vary with different combinations and ratios of the other trihalomethanes in a particular sample. Based on 0.080 mg/L dibromochloromethane; the risk will vary with different combinations and ratios of the other trihalomethanes in a particular sample.

- The PHG for bromodichloromethane is 0.06 ppb. The levels of bromodichloromethane detected in Pomona sources ranged from ND to 7.1 ppb, and the average was 1.9 ppb.

- The PHG for bromoform is 0.5 ppb. The levels of bromoform detected in Pomona sources ranged from ND to 19 ppb, and the average was 6.3 ppb.

- The PHG for chloroform is 0.4 ppb. The levels of chloroform detected in Pomona sources ranged from ND to 7.7 ppb, and the average was 0.5 ppb.

- The PHG for dibromochloromethane is 0.1 ppb. The levels of dibromochloromethane detected in Pomona sources ranged from ND to 10 ppb, and the average was 1.0 ppb.

Purchased water from Metropolitan Water District of Southern California (MWD) had no detections of TTHMs. The levels detected were below the MCL at all times for TTHMs.

The USEPA and the State Water Resources Control Board Division of Drinking Water identify Best Available Technologies (BAT) for contaminants. The PHG report notes that for the range of contaminants identified as exceeding PHGs (including Chlorite, TTHMs, Dichloroacetic Acid, and PFOA), recommended approaches include Enhanced Coagulation combined with Granular Activated Carbon (GAC) filtration, or Reverse Osmosis (RO). GAC can help remove organic precursors, thus reducing the formation of disinfection byproducts (Chlorite, TTHMs, Dichloroacetic Acid), and is also a recommended BAT for PFOA. The District's treatment facility currently utilizes enhanced coagulation with anthracite filters. RO is also effective for PFOA and other PFAS compounds.

The estimated cost to install and operate such a treatment system that would reliably reduce the TTHM level would be estimated at approximately $420,000 per year for each 1,500 GPM treated, or an increased cost of $2.80 for each person per year. This includes annualized capital, operating and maintenance costs for treatment alone. This does not include costs of energy, operation and maintenance of wells, boosters, and related pumping equipment.

Coliform Bacteria:

The California Revised Total Coliform Rule (RTCR) became effective in July 2021. The revisions include the new Coliform Treatment Technique requirement replacing the Total Coliform MCL, a new E.coli MCL regulatory limit, and guidance for exceedances and monthly reporting. The Revised Total Coliform Rule establishes a “find-and-fix” approach for investigating and correcting causes of coliform problems within water distribution systems.

During 2022, 2023, and 2024, the City collected between 140 and 178 samples each month for coliform analysis. Occasionally, a sample was found to be positive for coliform bacteria but check samples were negative and follow up actions were taken. A maximum of 2.01% of these samples were positive in any month.

The MCL for coliform is 5% positive samples of all samples per month and the MCLG is zero. The reason for the coliform drinking water standard is to minimize the possibility of the water containing pathogens which are organisms that cause waterborne disease. Because coliform is only a surrogate indicator of potential presence of pathogens, it is not possible to state a specific numerical health risk. While USEPA normally sets MCLGs “at a level where no known or

anticipated adverse effects on persons would occur", they indicate that they cannot do so with coliforms.

Coliform bacteria are "indicator organisms" that are ubiquitous in nature and are not generally considered harmful. They are used because of the ease in monitoring and analysis. If a positive sample is found, it indicates a potential problem that needs to be investigated and follow up sampling must be completed. It is not at all unusual for a system to have an occasional positive sample. It is difficult if not impossible; to assure that a system will never get a positive sample. Therefore, no estimate of cost has been included.

Chlorine is added at sources to assure that the water served is microbiologically safe. The chlorine residual levels are carefully controlled to provide the best health protection without causing the water to have undesirable taste and odor or increasing the disinfection byproduct level. This careful balance of treatment process is essential to continue supplying our customers with safe drinking water.

Recommendations for Further Action

The City of Pomona's drinking water quality meets all SWRCB DDW and USEPA drinking water standards set to protect public health. To further reduce levels of the constituents identified in this report that are already below the health-based Maximum Contaminant Levels established to provide "safe drinking water", additional costly treatment processes would be required. The effectiveness of the treatment processes to provide any significant reductions in constituent levels at these already low values is uncertain. The health protection benefits of these further hypothetical reductions are not at all clear and may not be quantifiable. Therefore, no action is proposed.

Attachments:

Attachment 1- Table of MCLs, DLRs, and PHGs for Regulated Drinking Water Contaminants

Attachment 2- Health Risk Information for Public Health Goal Exceedance Reports

Attachment 3- California Health and Safety Code: Section 116470(b) & 116365

Table of Regulated Drinking Water Contaminants

with

MCLs, DLRs, PHGs

(Attachment 1)

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* Specific Conductance (µS/cm[9])	500	1,000	1,500	--	500	1981-01-19
	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-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)

Health Risk Information for Public Health Goal Exceedance Reports

February 2025

(Attachment 2)

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 (1×10^{-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})	$1x10^{-6}$	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	$1x10^{-6}$	0.080#	1.3×10^{-3} (1.3 per thousand)[14]
Trihalomethanes: Bromoform	carcinogenicity (causes cancer)	0.0005	$1x10^{-6}$	0.080#	2×10^{-4} (two per ten thousand)[15]
Trihalomethanes: Chloroform	carcinogenicity (causes cancer)	0.0004	$1x10^{-6}$	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	$1x10^{-6}$	0.080[#]	8×10^{-4} (eight per ten thousand)[17]
Tritium	carcinogenicity (causes cancer)	400 pCi/L	$1x10^{-6}$	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 $1x10^{-3}$ (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 $2x10^{-3}$ (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.

California Health and Safety Code

Section 116470 & 116365

(Attachment 3)

Cal.Health & Safety Code § 116365 -

(a) The state board shall adopt primary drinking water standards for contaminants in drinking water that are based upon the criteria set forth in subdivision (b) and shall not be less stringent than the national primary drinking water standards adopted by the United States Environmental Protection Agency. A primary drinking water standard adopted by the state board shall be set at a level that is as close as feasible to the corresponding public health goal placing primary emphasis on the protection of public health, and that, to the extent technologically and economically feasible, meets all of the following:

(1) With respect to acutely toxic substances, avoids any known or anticipated adverse effects on public health with an adequate margin of safety.

(2) With respect to carcinogens, or any substances that may cause chronic disease, avoids any significant risk to public health. -

(b) The state board shall consider all of the following criteria when it adopts a primary drinking water standard:

(1) The public health goal for the contaminant published by the Office of Environmental Health Hazard Assessment pursuant to subdivision (c).

(2) The national primary drinking water standard for the contaminant, if any, adopted by the United States Environmental Protection Agency.

(3) The technological and economic feasibility of compliance with the proposed primary drinking water standard. For the purposes of determining economic feasibility pursuant to this paragraph, the state board shall consider the costs of compliance to public water systems, customers, and other affected parties with the proposed primary drinking water standard, including the cost per customer and aggregate cost of compliance, using best available technology.

(c)(1) The Office of Environmental Health Hazard Assessment shall prepare and publish an assessment of the risks to public health posed by each contaminant for which the state board proposes a primary drinking water standard. The risk assessment shall be prepared using the most current principles, practices, and methods used by public health professionals who are experienced practitioners in the fields of epidemiology, risk assessment, and toxicology. The risk assessment shall contain an estimate of the level of the contaminant in drinking water that is not anticipated to cause or contribute to adverse health effects, or that does not pose any significant risk to health. This level shall be known as the public health goal for the contaminant. The public health goal shall be based exclusively on public health considerations and shall be set in accordance with all of the following:

(A) If the contaminant is an acutely toxic substance, the public health goal shall be set at the level at which no known or anticipated adverse effects on health occur, with an adequate margin of safety.

(B) If the contaminant is a carcinogen or other substance that may cause chronic disease, the public health goal shall be set at the level that, based upon currently available data, does not pose any significant risk to health. -

(C) To the extent information is available, the public health goal shall take into account each of the following factors:

(i) Synergistic effects resulting from exposure to, or interaction between, the contaminant and one or more other substances or contaminants. -

(ii) Adverse health effects the contaminant has on members of subgroups that comprise a meaningful portion of the general population, including, but not limited to, infants, children, pregnant women, the elderly, individuals with a history of serious illness, or other subgroups that are identifiable as being at greater risk of adverse health effects than the general population when exposed to the contaminant in drinking water.

(iii) The relationship between exposure to the contaminant and increased body burden and the degree to which increased body burden levels alter physiological function or structure in a manner that may significantly increase the risk of illness. -

(iv) The additive effect of exposure to the contaminant in media other than drinking water, including, but not limited to, exposures to the contaminant in food, and in ambient and indoor air, and the degree to which these exposures may contribute to the overall body burden of the contaminant.

(D) If the Office of Environmental Health Hazard Assessment finds that currently available scientific data are insufficient to determine the level of a contaminant at which no known or anticipated adverse effects on health will occur, with an adequate margin of safety, or the level that poses no significant risk to public health, the public health goal shall be set at a level that is protective of public health, with an adequate margin of safety. This level shall be based exclusively on health considerations and shall, to the extent scientific data is available, take into account the factors set forth in clauses (i) to (iv), inclusive, of subparagraph (C), and shall be based on the most current principles, practices, and methods used by public health professionals who are experienced practitioners in the fields of epidemiology, risk assessment, and toxicology. However, if adequate scientific evidence demonstrates that a safe dose response threshold for a contaminant exists, then the public health goal should be set at that threshold. The state board may set the public health goal at zero if necessary to satisfy the requirements of this subparagraph.

(2) The determination of the toxicological endpoints of a contaminant and the publication of its public health goal in a risk assessment prepared by the Office of Environmental Health Hazard Assessment are not subject to the requirements of Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code. The Office of Environmental Health Hazard Assessment and the state board shall not impose any mandate on a public water system that requires the public water system to comply with a public health goal. The Legislature finds and declares that the addition of this paragraph by Chapter 777 of the Statutes of 1999 is declaratory of existing law.

(3)(A) The Office of Environmental Health Hazard Assessment shall, at the time it commences preparation of a risk assessment for a contaminant as required by this subdivision, electronically post on its Internet Web site a notice that informs interested persons that it has initiated work on the risk assessment. The notice shall also include a brief description, or a bibliography, of the technical documents or other information the office has identified to date as relevant to the preparation of the risk assessment and inform persons who wish to submit information concerning the contaminant that is the subject of the risk assessment of the name and address of the person in the office to whom the information may be sent, the date by which the information shall be received in order for the office to consider it in the preparation of the risk assessment, and that all information submitted will be made available to any member of the public who requests it.

(B) A draft risk assessment prepared by the Office of Environmental Health Hazard Assessment pursuant to this subdivision shall be made available to the public at least 45 calendar days before the date that public comment and discussion on the risk assessment are solicited at the public workshop required by Section 57003.

(C) At the time the Office of Environmental Health Hazard Assessment publishes the final risk assessment for a contaminant, the office shall respond in writing to significant comments, data, studies, or other written information submitted by interested persons to the office in connection with the preparation of the risk assessment. These comments, data, studies, or other written information submitted to the office shall be made available to any member of the public who requests it.

(D) After the public workshop on the draft risk assessment, as required by Section 57003, is completed, the Office of Environmental Health Hazard Assessment shall submit the draft risk assessment for external scientific peer review using the process set forth in Section 57004 and shall comply with paragraph (2) of subdivision (d) of Section 57004 before publication of the final public health goal.

(d) Notwithstanding any other provision of this section, any maximum contaminant level in effect on August 22, 1995, may be amended by the state board to make the level more stringent pursuant to this section. However, the state board may only amend a maximum contaminant level to make it less stringent if the state board shows clear and convincing evidence that the maximum contaminant level should be made less stringent and the amendment is made consistent with this section.

(e)(1) All public health goals published by the Office of Environmental Health Hazard Assessment shall be established in accordance with the requirements of subdivision (c) and shall be reviewed at least once every five years and revised, pursuant to subdivision (c), as necessary based upon the availability of new scientific data.

(2) On or before January 1, 1998, the Office of Environmental Health Hazard Assessment shall publish a public health goal for at least 25 drinking water contaminants for which a primary drinking water standard has been adopted by the state board. The office shall publish a public health goal for 25 additional drinking water contaminants by January 1, 1999, and for all remaining drinking water contaminants for which a primary drinking water standard has been adopted by the state board by no later than December 31, 2001. A public health goal shall be published by the Office of Environmental Health Hazard Assessment at the same time the state board proposes the adoption of a primary drinking water standard for any newly regulated contaminant.

(f) The state board or Office of Environmental Health Hazard Assessment may review, and adopt by reference, any information prepared by, or on behalf of, the United States Environmental Protection Agency for the purpose of adopting a national primary drinking water standard or maximum contaminant level goal when it establishes a California maximum contaminant level or publishes a public health goal.

(g) At least once every five years after adoption of a primary drinking water standard, the state board shall review the primary drinking water standard and shall, consistent with the criteria set forth in subdivisions (a) and (b), amend any standard if any of the following occur:

(1) Changes in technology or treatment techniques that permit a materially greater protection of public health or attainment of the public health goal.

(2) New scientific evidence that indicates that the substance may present a materially different risk to public health than was previously determined.

(h) No later than March 1 of every year, the state board shall provide public notice of each primary drinking water standard it proposes to review in that year pursuant to this section. Thereafter, the state board shall solicit and consider public comment and hold one or more public hearings regarding its proposal to either amend or maintain an existing standard. With adequate public notice, the state board may review additional contaminants not covered by the March 1 notice.

(i) This section shall operate prospectively to govern the adoption of new or revised primary drinking water standards and does not require the repeal or readoption of primary drinking water standards in effect immediately preceding January 1, 1997.

(j) The state board may, by regulation, require the use of a specified treatment technique in lieu of establishing a maximum contaminant level for a contaminant if the state board determines that it is not economically or technologically feasible to ascertain the level of the contaminant.

(Added by Stats.1996, c. 755 (S.B.1307), § 9. Amended by Stats.1999, c. 777 (S.B.635), § 1; Stats.2015, c. 24 (S.B.83), § 18, eff. June 24, 2015.)

Current as of January 18, 2019

REFERENCES

California Code, Health and Safety Code - HSC § 116470

Current as of January 01, 2023 | Updated by FindLaw Staff

(a) As a condition of its operating permit, every public water system shall annually prepare a consumer confidence report and mail or deliver a copy of that report to each customer, other than an occupant, as defined in Section 799.28 of the Civil Code, of a recreational vehicle park. A public water system in a recreational vehicle park with occupants as defined in Section 799.28 of the Civil Code shall prominently display on a bulletin board at the entrance to or in the office of the park, and make available upon request, a copy of the report. The report shall include all of the following information:

(1) The source of the water purveyed by the public water system.

(2) A brief and plainly worded definition of the terms “maximum contaminant level,” “primary drinking water standard,” and “public health goal.”

(3) If any regulated contaminant is detected in public drinking water supplied by the system during the past year, the report shall include all of the following information:

(A) The level of the contaminant found in the drinking water, and the corresponding public health goal and primary drinking water standard for that contaminant.

(B) Any violations of the primary drinking water standard that have occurred as a result of the presence of the contaminant in the drinking water and a brief and plainly worded statement of health concerns that resulted in the regulation of that contaminant.

(C) The public water system's address and phone number to enable customers to obtain further information concerning contaminants and potential health effects.

(4) Information on the levels of unregulated contaminants, if any, for which monitoring is required pursuant to state or federal law or regulation.

(5) Disclosure of any variances or exemptions from primary drinking water standards granted to the system and the basis therefor.

(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.

(g) This section is intended to provide an alternative form for the federally required consumer confidence report as authorized by 42 U.S.C. Section 300g-3(c).