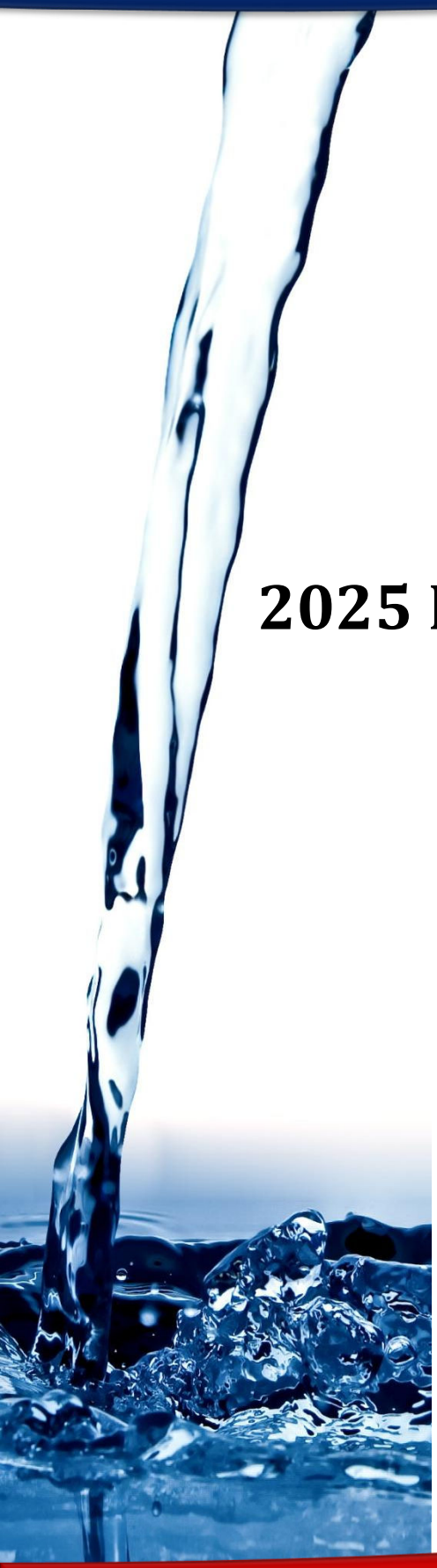

2025 Public Health Goals Report

June 10, 2025

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Public Water System
ID No. **CA1910239**

2025 Public Health Goals Report

Background

Provisions of the California Health and Safety Code §116470 specify that a public water system serving more than 10,000 service connections must prepare a special report by July 1, 2025 that gives information on the "detection" of any constituents that exceeded any Public Health Goals (PHGs). PHGs are non-enforceable goals established by the California Environmental Protection Agency (Cal-EPA)'s Office of Environmental Health Hazard Assessment (OEHHA). The law also requires that where OEHHA has not adopted a PHG for a constituent, water suppliers are to use the Maximum Contaminant Level Goals (MCLGs) adopted by the United States Environmental Protection Agency (USEPA). MCLGs are the federal equivalent to PHGs.

The purpose of this report is to provide water system customers information concerning detectable levels of a constituent below enforceable mandatory drinking water standards, Maximum Contaminant Levels (MCLs), and to provide customers with the cost to eliminate any trace of the contaminant from drinking water regardless of how minimal the health risk. The report is required by State of California.

Drinking Water Standard, MCLs, PHGs and MCLGs

The USEPA and the California State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) establish drinking water standards at very conservative levels to protect consumers against all but very low to negligible health risks. MCLs are the regulatory definition of what is "safe". Adopted MCLs are the criteria utilized to ensure that a public water system is in compliance with drinking water standards. Per standard health effects language specified in California Drinking Water Regulations, Title 22, Code of Regulations, drinking water which meets DDW standards is associated with little to no risk and should be considered safe.

PHGs set by the OEHHA are based solely on public health risk considerations. None of the practical risk-management factors, which are considered by the USEPA or the DDW in setting drinking water standards (aka. MCLs) are considered in setting the MCLGs or PHGs. These factors include analytical detection capability, treatment technology available, benefits and costs. The Attachment "A" is a list of all regulated constituents with their MCLs and PHGs or MCLGs.

PHGs and MCLGs are set at very low levels where the health risks are very low or, in the case of zero, the health risk is zero. Determinations of health risk at these low levels are frequently theoretically based on risk assessments with many assumptions and mathematical extrapolations. Many constituents are considered to be carcinogenic and the USEPA has set the MCLGs at zero, which cannot be measured by practical available analytical methods. PHGs and MCLGs are not regulatory in nature and represent only non-mandatory theoretical goals.

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 detailed in our 2022, 2023, and 2024 Annual Water Quality Reports, which are also referred to as Consumer Confidence Report (CCR). Each report was available and noticed to all water customers.

If a constituent was detected in the water supply at a level above an applicable PHG or MCLG, this report provides the information required by the law. Included is the numerical public health risk associated with the MCL and the PHG or the MCLG, the category or type of risk to health that could be associated with each constituent level, and an estimate of the annualized cost of the treatment system if it is appropriate and feasible.

Best Available Treatment Technology and Cost Estimates

Both the USEPA and DDW adopt what are known as BATs or Best Available Technologies, which are the best-known methods of reducing contaminant levels to meet the MCL. However, since many PHGs and MCLGs are set much lower than the MCLs, it is neither always possible nor feasible to determine what treatment is needed to further reduce a constituent downward to or near the PHG or MCLG, which many are set at zero.

Estimating the costs to reduce a constituent to a low PHG level (sometimes to non-detect levels, or zero) is difficult and highly speculative because it is not possible to verify by analytical means. In some cases, installing a treatment facility to further reduce levels of one constituent that already is at a very low level may have adverse effects on other aspects of water quality.

Using the best available technology to reduce a constituent level – including annualized cost to design, install and operate – has been estimated. The cost estimates for each service connection are calculated by assumption that the cost will be equally shared by each of the 20,027 service connections in the water system.

Constituents Detected That Exceed a PHG or MCLG

The following are discussions of constituents that were detected in one or more of the City's drinking water sources at levels above the PHG or MCL. The table below is a brief summary of those constituents.

Constituent	MCL	DLR	PHG	Detection Level 2022-2024 Average	Treatment Cost to Meet PHG[4]
Arsenic (ppb)	10	2	.004	6.36	$34 M
Uranium (pCi/L)	20	1	0.43	1.57	--
Gross Alpha (pCi/L)	15	3	0	2.09	[5]$67 M
PFOA (ppt)	4[1]	none	0.007	2.69	$50 M
PFOS (ppt)	4[1]	none	1.00	9.77	$50 M
HAA5 (ppb)	60	1-2[2]	0.03-53[3]	4.33	$50 M
				Estimated Total: $251 M	

ppb: parts-per-billion
ppt: parts-per-trillion
pC1/L: pico-Curies per Liter
ppm: parts-per-million = mg/L
DLR: Detection limits for reporting purposes
HAA5: Sum of 5 haloacetic acids
None = not established
N.A. = not applicable, as it was not tested
More information can be found at OEHHA's website at: https://oehha.ca.gov/water/public-health-goals-phgs

Footnotes:

1. MCL for PFOA and PFOS is currently established by the Federal EPA, and not the State
2. DLR for dichloroacetic, tricloroacetic, monobromoacetic, & dibromoacetic acids = 1 ppb, monochloroacetic acid = 2 ppb
3. PHG for dichloroacetic acid = 0.2 ppb, tricloroacetic acid = 0.1 ppb, monobromoacetic acid = 25 ppb, dibromoacetic acid = 0.03 ppb, and 1 monochloroacetic acid = 53 ppb
4. Arsenic costs are for Wells 13A and 27 are $17 M each X 2 wells = $34 M total. PFOA & PFOS treatment plants are $50 combined, to treat both constituents together.
5. Uranium and Gross Alpha treatment will be combined (both removed together) for a total of $67M

Arsenic

Arsenic has been detected from all of our 10 ground water wells. The **MCL is 10 ppb** and the **PHG is .004 ppb (4 parts-per-trillion, ppt)**. The levels detected in the City's system were below the MCL but above the PHG level.

The PHG is established based on a theoretical 70-year lifetime excess cancer risk of 1×10^{-6} at a statistical confidence limit, which is upper bound estimate of excess cancer risk from lifetime exposure. Actual cancer risk may be lower or zero. Cancer risk is stated in terms of excess cancer per million (or fewer) population, e.g., 1×10^{-6} means 1 excess cancer cases per 1,000,000 people exposed.

Arsenic is a naturally occurring element in the earth's crust and is widely detected in the environment. All humans are exposed to microgram quantities of arsenic largely from food and to a lesser degree from drinking water and air. The PHG of .004 ppb for arsenic in drinking water is derived based on the mortality of arsenic-induced lung and urinary bladder cancers observed in epidemiological studies of populations in Taiwan, Chile, and Argentina. Similar unit risks were derived from a mouse bioassay using prenatal exposure to arsenic. The risk estimates were based on a low-dose linear extrapolation approach although the mode of carcinogenic action is not fully understood.

Well 27 Arsenic Treatment Plant

In 2010, the City of Lakewood completed the installation of a treatment plant for the removal of arsenic from the water supply at one of the city's production wells. This plant uses coagulation/filtration to treat arsenic to below the MCL. Additional treatment would need to be installed to further reduce the levels. However, it is not possible to remove arsenic levels at or below the PHG of 4 ppt, because the detection limit for laboratory analysis stands at 2,000 ppt.

The applicable BAT for removing arsenic to the PHG level is the Reverse Osmosis (RO) treatment technology. Using recent water supply data and industrial available data for the RO facilities, the Department of Water Resources estimates the annualized capital and O&M costs at approximately $17 million*. The costs include engineering design, construction management and inspection services, and annual operation and maintenance activities. The cost estimates for treatment do not include any additional land acquisition. In most cases, well sites do not have enough space for treatment facilities.

*Note: Cost based on ENR 2022 CCI of 13,004.47 & 2025 CCI of 13,798.28 for CCI adjustment of 1.061 (13,798.28/13,004.47). For this specific estimate: $16,000,000 (2022) X 1.061 = $16,976,000 = $17 M (rounded up) for 2025.

Well 13A Arsenic Treatment Plant

In 2024, the City of Lakewood completed the installation of a treatment plant (TP) for the removal of arsenic from city's Well 13A. After the treatment plant construction was completed, it was tested (without flowing into the system) over a 5-month period, and the treatment plant reduced the arsenic levels to an average of approximately 3 ppb, which is well below the maximum allowed by the state. Because the arsenic removal was successful, the state issued a Permit Amendment to operate this TP, on October 3, 2024. This plant uses coagulation/filtration to treat arsenic to below the MCL. It is not possible to remove arsenic levels at or below the PHG of 4 parts per trillion (ppt), because the detection limit for laboratory analysis stands at 2,000 ppt.

The applicable BAT for removing arsenic to the PHG level is the Reverse Osmosis (RO) treatment technology. Using recent water supply data and industrial available data for the RO facilities, the Department of Water Resources estimates the annualized capital and O&M costs at approximately $17 million*. The costs include engineering design, construction management and inspection services, and annual operation and maintenance activities. The cost estimates for treatment do not include any additional land acquisition. In most cases, well sites do not have enough space for treatment facilities.

*Note: Cost based on ENR 2022 CCI of 13,004.47 & 2025 CCI of 13,798.28 for CCI adjustment of 1.061. For this specific estimate: $16,000,000 (2022) X 1.061 = $16,976,000 = $17 M (rounded up) for 2025.

Uranium

Uranium has been detected in 2 of our 11 ground water wells. The **MCL is 20 pico-Curies per liter (pCi/L)** and the **PHG is 0.43 pCi/L (4 parts-per-trillion (ppt))**. The levels detected in the City's system were below the MCL but above the PHG level.

Naturally occurring uranium is found in groundwater supplies as a result of leaching from uranium-bearing sandstone, shale, and other rock formations. Uranium may also be present in surface water, carried through runoff from areas with mining operations.

The Office of Environmental Health Hazard Assessment (OEHHA) has a numerical cancer risk of 1×10^{-6} for the 0.43 pCi/L PHG, and a cancer risk of 5×10^{-5} for the California Department of Health Maximum Contaminant Level of 20 pCi/L. As previously described, 1×10^{-6} means 1 excess cancer case per 1,000,000 people; 5×10^{-5} means 5 excess cancer cases per 100,000 people. (1 and 5 excess cases mean 1 and 5 persons respectively will get cancer than if the population had not been exposed to the chemical.)

Ion exchange, reverse osmosis, lime softening, coagulation/filtration are the technologies available for achieving compliance with the MCL for uranium. The applicable BAT for removing uranium to the PHG level is the Reverse Osmosis (RO) treatment technology. Using reverse osmosis, it would cost the City of Lakewood an estimated $67 million dollars in annualized capital, and operation and maintenance cost* to achieve the PHG level.

***Note: Cost based on ENR 2022 CCI of 13,004.47 & 2025 CCI of 13,798.28 for CCI adjustment of 1.061. For this specific estimate: $63,000,000 (2022) X 1.061 = $66,843,000 = $67 M (rounded up) for 2025.

Gross Alpha

Radionuclides such as alpha in water supplies are from erosion of natural deposits. The term radionuclide refers to naturally occurring elemental radium, radon, uranium, and thorium with unstable atomic nuclei that spontaneously decay producing ionizing radiation. Gross alpha is defined as the sum total of these radionuclides. Exposure to ionizing radiation in concentrations exceeding the maximum contaminant level may have carcinogenic (cancer causing), mutagenic (causing mutation of cells) or teratogenic (causing abnormalities in offspring) effects.

The EPA's **Maximum Contaminant Level Goal (MCLG) for gross alpha particle is 0** and the California **Maximum Contaminant Level (MCL) is 15 pCi/L**. The City of Lakewood's average levels of gross alpha detected were below MCL at all times.

Ion exchange, reverse osmosis, lime softening, coagulation/filtration are the technologies available for achieving compliance with the MCL for gross alpha. The applicable BAT for removing gross alpha to the PHG level is the Reverse Osmosis (RO) treatment technology. Reverse osmosis, would cost the City of Lakewood $0 million dollars in annualized capital, and operation and maintenance cost to achieve the PHG level, as this would be treated during the Uranium removal process.

PFOA and PFOS

For more than a half-century, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) were widely used in industrial applications and consumer products, notably, PFOA in nonstick cookware and PFOS in stain and water-repellant fabrics and in fire-fighting foams. The manufacture of these chemicals was phased out in the US following concerns about their extreme persistence in the environment and their detection in virtually all human blood serum samples. Although levels in the environment have declined from their peak around the year 2000, PFOA and PFOS continue to be present in the environment and are found in California drinking water. Because exposure to these chemicals is so prevalent and elimination times are so long, it is critical to understand the toxicity associated with these compounds, and their impacts on human health.

PFOA has been detected in 3 of the 11 ground water wells. The EPA's **MCL for PFOA is 4 ppt (parts-per-trillion, ppt)**, and the and the **PHG for PFOA is 0.007 (parts-per-trillion, ppt)**.

PFOS has been detected in 4 of the 11 ground water wells. The EPA's **MCL for PFOS is 4 ppt (parts-per-trillion, ppt)**, and the and the **PHG for PFOS is 1 (parts-per-trillion, ppt)**.

Ion exchange, granular activated carbon and reverse osmosis are the technologies available for achieving compliance with the MCL for PFOA and PFOS. All aforementioned technologies are considered BAT for removing PFOS and PFOA to the PHG level. Using reverse osmosis, it would cost the City of Lakewood an estimated $50 million dollars in annualized capital*, and operation and maintenance cost to achieve the PHG level.

***Note: Cost based on local well head treatment costs, provided by AqueoUS Vets, Inc. estimate of $5,000,000 per well X 10 wells = $50 M for 2025.

Haloacetic Acids (five) (HAA5)

The five regulated haloacetic acids (HAA5) found in drinking water are a result of disinfection methods, and consist of the following five: monochloroacetic acid (MCA), dichloroacetic acid (DCA), trichloroacetic acid (TCA), monobromoacetic acid (MBA), and dibromoacetic acid (DBA). The HAA5s are one of the major categories of disinfection byproducts (DBPs) formed in the chlorination disinfection process.

HAA5 is typically detected at four out of four sample sites. The **MCL for HAA5 is 60 ppb (parts-per-billion, ppb)**, and the and the **PHG for HAA5 ranges from 0.03 to 53 ppb (parts-per-billion, ppb), per the table listed on page 4**. The levels detected in the City's system were below the MCL but above the PHG level.

Activated carbon adsorption, reverse osmosis, and ozone are the technologies available for achieving compliance with the MCL for HAA5. All aforementioned technologies are considered BAT for removing HAA5 to the PHG level. Using reverse osmosis, it would cost the City of Lakewood an estimated $50 million dollars in annualized capital, and operation and maintenance cost to achieve the PHG level.

***Note: Cost based on ozone treatment treatment costs, from AUC Group (www.aucgroup.net/water-treatment-plant-costs), of $5,000,000 per well X 10 wells = $50 M for 2025.

Recommendations for Further Action

The drinking water quality of the City of Lakewood's water system meets all State and Federal drinking water standards set to protect public health. Additional costly treatment processes would be required to further reduce the levels of the constituents identified in this report, which are already below the MCLs established to provide safe drinking water. The effectiveness of the treatment processes to provide further 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.

Attachment A Table of Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)
Attachment B City of Lakewood Annual Water Quality Reports (2022, 2023 and 2024)

ATTACHMENT A

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.

ATTACHMENT B

ANNUAL WATER QUALITY REPORT

Reporting Year 2022

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

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

Presented By

City of Lakewood

PWS ID#: CA1910239

We are committed to providing safe, reliable, and high-quality drinking water services to Lakewood customers.

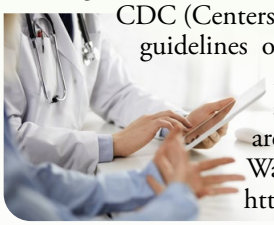
Our Mission Continues

The City of Lakewood is once again pleased to present our annual water quality report covering all testing performed in 2022. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. In 2022 all water delivered by the City of Lakewood Department of Water Resources met or exceeded all federal and state standards.

Important Health Information

While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency (U.S. EPA) continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and linked to other health effects such as skin damage and circulatory problems.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline.



Source Water Assessment

Assessments of the city's drinking water sources were completed in 2003 and 2006. These studies examined the potential vulnerability of each well to contaminants that could enter the water supply. Our groundwater supply is considered most vulnerable to the following activities: gas stations and repair shops, historic gas station locations, storage tanks, dry cleaners, and permitted National Pollutant Discharge Elimination System/Waste Discharge Requirement discharges. A copy of the complete assessment is available at the Lakewood city clerk's office at 5050 Clark Avenue. You may request a summary of the assessment by contacting the Lakewood Department of Water Resources at (562) 866-9771, extension 2700, during regular office hours.

Community Participation

You are invited to participate in our city council meetings to voice your concerns about your drinking water. We meet the second and fourth Tuesday of each month at 7:30 p.m. in City Council Chambers, 5000 Clark Avenue, Lakewood.

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. (If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or at www.epa.gov/safewater/lead.

Questions?

For more information about this report, or for any questions relating to your drinking water, please contact the water administration manager at (562) 866-9771, extension 2700.

Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health. 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.

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 can 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, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

Radioactive Contaminants that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Where Does My Water Come From?

Your tap water comes from local deep groundwater wells. The City of Lakewood is responsible for providing water services for residents and businesses west of the San Gabriel River. Golden State Water Company (GSWC, an investor-owned water utility) serves the area east of the river. For information on GSWC's Water Quality Report, call (800) 999-4033.

Highlights of Lakewood's water system include:

- 100 percent groundwater produced from 11 deep wells
- Approximately 180 miles of water mains, ranging from 4 to 27 inches in diameter
- Three water storage plant facilities holding approximately 13 million gallons
- A 2,500-gallon-per-minute water treatment facility
- A standby connection to Metropolitan Water District of Southern California's imported supplies for emergency use
- Four emergency interconnections with the City of Long Beach, GSWC, City of Cerritos, and City of Signal Hill
- More than 2.1 billion gallons of water provided annually to over 60,000 residents and commercial and institutional customers via more than 20,000 metered connections
- Approximately 6 percent of water supply was recycled water and used for irrigation at 42 sites

Smart Meters

In 2018 the City of Lakewood completed an upgrade of all our customer water meters to smart meters. The smart meters provide benefits to all customers and help everyone use water more wisely. Features include:

- Leak Detection. You are now able to receive a text or email alert if we detect usage that may indicate you have a leak.
- Control Your Water Usage. Using the customer portal, you can set a custom water consumption threshold and receive an alert via text or email when the system projects your current usage will exceed your configured threshold setting.
- Efficiency Benchmarking. Find out how your water usage compares to similar accounts using highly customizable benchmarks for both residential and commercial accounts.

More than 60 percent of our customers have registered on the smart meter web portal and are now enjoying the benefits of timely monitoring and control of their water usage, leak detection alerts, and saving water and money. For questions and portal registration, call customer service at (855) 785-4021. To view your account online, visit www.lakewoodcity.org/UtilityBill.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water. Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES WITH PRIMARY STANDARDS

SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	PHG (MCLG) [MRDLG]	AVERAGE AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	10	0.004	6.1	2.6–10.3	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chlorine (ppm)	[4.0 (as Cl2)]	[4 (as Cl2)]	0.6	0.5–0.7	No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2.0	1	0.3	0.2–0.4	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
HAA5 [sum of 5 haloacetic acids]–Stage 1 (ppb)	60	NA	5.4	ND–21.7	No	By-product of drinking water disinfection
TTHMs [total trihalomethanes]–Stage 1 (ppb)	80	NA	23.7	8.7–83.2	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	AL	PHG (MCLG)	AMOUNT DETECTED (90TH PERCENTILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	1.3	0.3	ND	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	15	0.2	ND	0/30	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

REGULATED SUBSTANCES WITH SECONDARY STANDARDS

SUBSTANCE (UNIT OF MEASURE)	SMCL	PHG (MCLG)	AVERAGE AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	500	NS	19.5	5.9–46.4	No	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µS/cm)	1,600	NS	413.5	300.0–626.0	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	500	NS	33.4	13.0–86.2	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	1,000	NS	256.2	170.0–408.0	No	Runoff/leaching from natural deposits

Definitions

90th percentile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

grains/gal (grains per gallon): Grains of compound per gallon of water.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) 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. EPA.

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 a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard.

UNREGULATED AND OTHER SUBSTANCES[1]			
SUBSTANCE (UNIT OF MEASURE)	AVERAGE AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Calcium (ppm)	48.0	16.2–78.3	Abundant naturally occurring element
Hardness (grains/gal)	8.9	2.6–15.1	Naturally occurring calcium
Hardness (ppm)	151.4	44.8–259.0	Naturally occurring calcium
Magnesium (ppm)	6.9	1.1–14.3	Abundant naturally occurring element
pH, Laboratory (units)	8.1	7.6–8.8	Hydrogen ion concentration
Potassium (ppm)	2.6	1.3–3.6	Runoff or leaching from natural deposits
Sodium (ppm)	30.9	24.0–47.0	Naturally occuring

[1] Unregulated contaminant monitoring helps U.S. EPA and the State Board determine where certain contaminants occur and whether the contaminants need to be regulated.

PFAS Monitoring

Per- and polyfluoroalkyl substances (PFAS) are a large group of human-made substances that have been used extensively in surface coating and protectant formulations due to their unique ability to reduce the surface tension of liquids. Perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) are two types of PFAS. PFAS are persistent in the environment, can accumulate within the human body over time, and are toxic at relatively low concentrations. Exposure to unsafe levels of PFOA or PFOS may result in adverse health effects including cancer, problems with the liver, thyroid, and immune system, and developmental problems to fetuses during pregnancy, among others.

PFAS have been detected in local groundwater wells in our region, although not in Lakewood. Under State Water Board order in 2019, 70 wells from 17 central basin purveyors were required to collect PFAS samples; in 36 wells from 13 purveyors, PFAS were detected above the state response levels. Three Lakewood wells were among those monitored, and all our results continue to be below the detection level for PFAS.

The four major sources of PFAS are fire training and fire response sites, industrial sites, landfills, and wastewater treatment plants and biosolids. PFAS can get into drinking water when products containing them are used or spilled onto the ground or into lakes and rivers. Once in groundwater, PFAS are easily transported large distances and can contaminate drinking wells. More PFAS information can be found at www.waterboards.ca.gov/pfas/.

Table Talk

Get the most out of the Testing Results data. In less than a minute, you will know all there is to know about your water:

> For each substance listed, compare the value in the Average Amount Detected column against the value in the MCL (or AL or SMCL) column. If the Average Amount Detected value is smaller, your water meets the health and safety standards set for the substance.

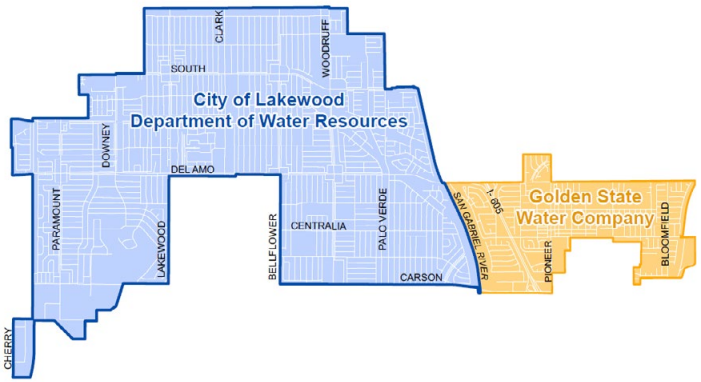
Other Table Information Worth Noting

Verify that there were no violations of the state or federal standards in the Violation column. If there was a violation, you will see a detailed description of the event in this report.

If there is an ND or a less-than symbol (<), it means that the substance was not detected (i.e., below the detection limits of the testing equipment).

The Range column displays the lowest and highest sample readings.

Water Purveyors in Lakewood



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

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

ANNUAL WATER QUALITY REPORT

Reporting Year 2023

Presented By

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While your drinking water meets the federal and state standards for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency (U.S. EPA) continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and linked to other health effects such as skin damage and circulatory problems.

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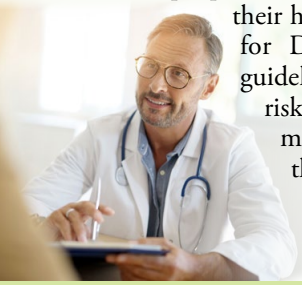


Where Does My Water Come From?

Your tap water comes from local, deep groundwater wells that supply our service area. The City of Lakewood is responsible for providing water services for residents and businesses west of the San Gabriel River. Golden State Water Company (GSWC) - an investor-owned water utility - serves the area east of the river. For information on GSWC's Water Quality Report, call (800) 999-4033.

Highlights of Lakewood's water system include:

- 100 percent groundwater produced from 11 deep wells
- Approximately 180 miles of water mains ranging from 4 to 27 inches in diameter
- Three water storage facilities holding approximately 13 million gallons
- A 2,500-gallon-per-minute water treatment facility
- A standby connection to the Metropolitan Water District of Southern California's imported supplies for emergency use
- Five emergency interconnections with the City of Long Beach, GSWC, the City of Cerritos, and the City of Signal Hill
- Over 2.1 billion gallons of water provided annually to over 60,000 residents and commercial and institutional customers via more than 20,000 metered connections.
- Approximately 6 percent of the water supply recycled and used for irrigation at 42 sites

Questions?

For more information about this report, or for any questions relating to your drinking water, please contact the water administration manager at (562) 866-9771, extension 2700.

Substances That Could Be in Water

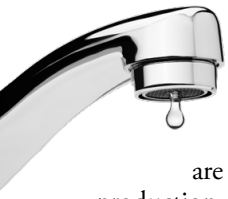
The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health. 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.

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 can 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, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

Radioactive Contaminants that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

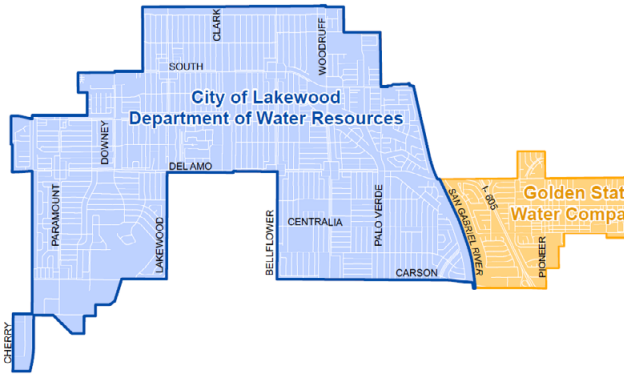
PFAS Monitoring

Per- and polyfluoroalkyl substances (PFAS) are a large group of human-made substances that have been used extensively in surface coating and protectant formulations due to their unique ability to reduce the surface tension of liquids. Perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) are two types of PFAS. The four major sources of PFAS are fire training/fire response sites, industrial sites, landfills, and wastewater treatment plants/biosolids. PFAS can get into drinking water when products containing them are used or spilled onto the ground or into lakes and rivers. Once in groundwater, PFAS are easily transported large distances and can contaminate drinking wells. More PFAS information can be found at State Water Board website: https://www.waterboards.ca.gov/pfas/.

The US EPA has issued final maximum contaminant levels (MCLs) at 4 parts per trillion (ppt) for PFOA and PFOS and 10 ppt for three other PFAS compounds; perfluorohexanesulfonic acid (PFHxS), perfluorononanoic acid (PFNA), and hexafluoropropylene oxide dimer acid (HFPO-DA) - also known as GenX. Water systems serving over 10,000 people are required to conduct monitoring by 2027 and achieve compliance by 2029. The City of Lakewood has conducted PFAS sampling in December 2023. Results of wells requiring notification are as follow:

Substance	Notification Level (ppt)	Well 2A	Well 17	Well 18
PFOA	5.1	1.1	4	5.3
PFOS	6.5	6.2	16	15

Water Purveyors in Lakewood



Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. (If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or epa.gov/safewater/lead.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data is included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2023	10	0.004	8.09	2.6 - 10.8	No	Erosion of natural deposits; Runoff from orchards; Glass and electronics production wastes
Chlorine (ppm)	2023	[4.0 (as Cl2)]	[4 (as Cl2)]	0.6	0.5 - 0.7	No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2023	2.0	1	0.3	0.2 - 0.4	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
HAA5 [sum of 5 haloacetic acids]–Stage 1 (ppb)	2023	60	NA	3.4	1.2 - 7.9	No	By-product of drinking water disinfection
TTHMs [total trihalomethanes]–Stage 1 (ppb)	2023	80	NA	17.4	10.1 - 28.4	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2023	1.3	0.3	0.22	0/30	No	Internal corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2023	15	0.2	ND	0/30	No	Internal corrosion of household water plumbing systems; Discharges from industrial manufacturers; Erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2023	500	NS	20.7	5.9 - 53.0	No	Runoff/leaching from natural deposits; Seawater influence
Specific Conductance (µS/cm)	2023	1,600	NS	431.5	300.0 - 680.0	No	Substances that form ions when in water; Seawater influence
Sulfate (ppm)	2023	500	NS	36.7	13.0 - 97.0	No	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids (ppm)	2023	1,000	NS	258.2	170.0 - 420.0	No	Runoff/leaching from natural deposits

UNREGULATED SUBSTANCES [1]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Calcium (ppm)	2023	49.3	16.2 - 84.5	Abundant naturally occurring element
Hardness (grains/gal)	2023	8.9	2.6 - 15.1	Naturally occurring calcium
Hardness (ppm)	2023	152.6	44.8 - 260.0	Naturally occurring calcium
Magnesium (ppm)	2023	6.9	1.1 - 13.9	Abundant naturally occurring element
pH, Laboratory (units)	2023	8.2	7.8 - 8.7	Hydrogen ion concentration
Potassium (ppm)	2023	2.7	1.3 - 3.7	Runoff or leaching from natural deposits
Sodium (ppm)	2023	31.3	24.0 - 47.0	Naturally occuring

[1] Unregulated contaminant monitoring helps the U.S. EPA and SWRCB determine where certain contaminants occur and whether the contaminants need to be regulated.

Community Participation

You are invited to participate in our city council meetings to voice your concerns about your drinking water. We meet the second and fourth Tuesday of each month at 7:30 p.m. in City Council Chambers, 5000 Clark Avenue.

Source Water Assessment

Assessments of the city's drinking water sources were completed in 2003 and 2006. These studies examined the potential vulnerability of each well to contaminants that could enter the water supply. Our groundwater supply is considered most vulnerable to the following activities: gas stations and repair shops, historic gas station locations, storage tanks, dry cleaners, and permitted National Pollutant Discharge Elimination System/Waste Discharge Requirement discharges. A copy of the complete assessment is available at the Lakewood City Clerk's Office at 5050 Clark Avenue. You may request a summary of the assessment by contacting the Lakewood Department of Water Resources at (562) 866-9771, extension 2700, during regular office hours.

Table Talk

Get the most out of the Testing Results data. In less than a minute, you will know all there is to know about your water.

> For each substance listed, compare the value in the Average Amount Detected column against the value in the MCL (or AL or SMCL) column. If the Average Amount Detected value is smaller, your water meets the health and safety standards set for the substance.

Verify that there were no violations of the state or federal standards in the Violation column. If there was a violation, you will see a detailed description of the event in this report.

If there is an ND or a less-than symbol (<), that means that the substance was not detected (i.e., below the detectable limits of the testing equipment).

The Range column displays the lowest and highest sample readings.

Smart Meters

In 2018 the City of Lakewood completed an upgrade of all our customer water meters to smart meters. The smart meters provide benefits to all customers and help everyone use water more wisely. Features include:

- Leak detection. You can now receive a text or email alert if we detect usage that may indicate you have a leak.
- Control of water usage. Using the customer portal, you can set a custom water consumption threshold and receive an alert via text or email when the system projects your current usage will exceed your configured threshold setting.
- Efficiency benchmarking. Find out how your water usage compares to similar accounts using highly customizable benchmarks for both residential and commercial accounts.

More than 63 percent of our customers have registered on the smart meter web portal to date and enjoy the benefits of timely monitoring, review, and control of their water usage. They've received leak detection alerts and saved water and money. For questions and portal registration, call customer service at (855) 785-4021 or visit lakewoodcity.org/UtilityBill to view your account online.

Definitions

90th percentile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

grains/gal (grains per gallon): Grains of compound per gallon of water.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) 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. EPA.

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 a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard.

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

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

ANNUAL WATER QUALITY REPORT

Reporting Year 2024

Presented By
City of Lakewood

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

PWS ID#: CA1910239

Where Does My Water Come From?

Your tap water comes from local deep groundwater wells that supply our service area. The City of Lakewood is responsible for providing water services for residents and businesses west of the San Gabriel River. Golden State Water Company (GSWC) - an investor-owned water utility - serves the area east of the river. For information on GSWC's Water Quality Report, call (800) 999-4033.

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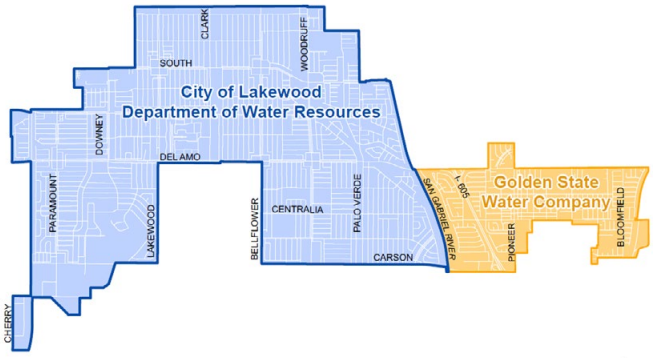
Water Purveyors in Lakewood



Our Mission Continues

The City of Lakewood is once again pleased to present our annual water quality report covering all testing performed from January 1 and December 31, 2024. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. In 2024 all water delivered by the City of Lakewood Water Resources Department met or exceeded all federal and state drinking water standards.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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. Environmental Protection Agency (U.S. EPA)/Centers for Disease Control and Prevention (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 at (800) 426-4791 or epa.gov/safewater.

Community Participation

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Questions?

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Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

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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 by-products 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 the result of oil and gas production and mining activities.

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Smart Meters

In 2018, the City of Lakewood completed an upgrade of all our customer water meters to smart meters. The smart meters provide benefits to all customers and help everyone use water more wisely. Features include:

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- Control Your Water Usage. Using the customer portal, you can set a custom water consumption threshold and receive an alert via text or email when the system projects your current usage will exceed your configured threshold setting.
- Efficiency Benchmarking. Find out how your water usage compares to similar accounts using highly customizable benchmarks for both residential and commercial accounts.

More than 65% of our customers have registered on the smart meter web portal in 2020 and enjoyed benefits of timely monitoring, reviewing and controlling their water usage, receiving leak detection alerts, and save water and money. For questions and portal registration, call customer service at (855) 785-4021 or visit www.lakewoodca.gov/UtilityBill to view your account online.

Safeguard Your Drinking Water

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain it to reduce leaching to water sources, or consider connecting to a public sewer system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use U.S. EPA's Adopt Your Watershed to locate groups in your community.
- Organize a storm drain stenciling project with others in your neighborhood. Stencil a message next to the street drain reminding people "Dump No Waste – Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

PFAS Monitoring

Per- and polyfluoroalkyl substances (PFAS) are a large group of human-made substances that have been used extensively in surface coating and protectant formulations due to their unique ability to reduce the surface tension of liquids. Perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) are two types of PFAS. The four major sources of PFAS are fire training/fire response sites, industrial sites, landfills, and wastewater treatment plants/biosolids. PFAS can get into drinking water when products containing them are used or spilled onto the ground or into lakes and rivers. Once in groundwater, PFAS are easily transported large distances and can contaminate drinking wells. More PFAS information can be found at the State Water Board website: https://www.waterboards.ca.gov/pfas/.

The US EPA has issued final maximum contaminant levels (MCLs) at 4 parts per trillion (ppt) for PFOA and PFOS and 10 ppt for three other PFAS compounds. Water systems serving over 10,000 people are required to conduct monitoring by 2027 and achieve compliance by 2031. The City of Lakewood has conducted PFAS sampling in January 2024. Results of wells requiring notification are as follows:

SUBSTANCE	NOTIFICATION LEVEL (PPT)	WELL 2A	WELL 17	WELL 18
PFOA	5.1	1.1	4.1	5.9
PFOS	6.5	7	17	15

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data is included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

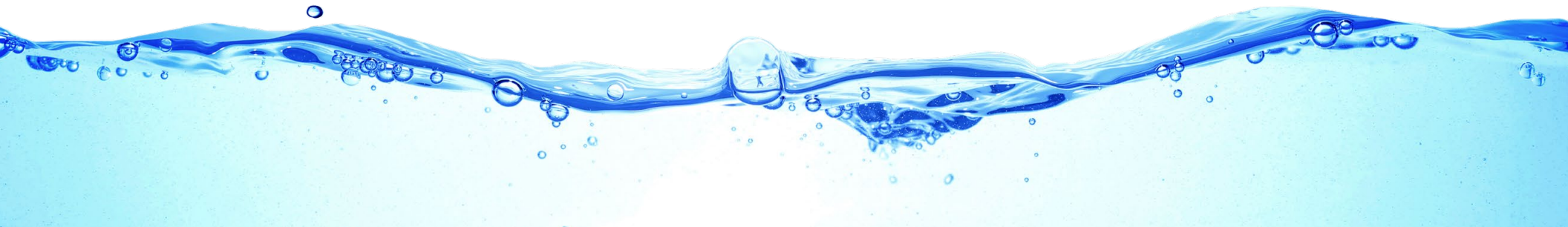
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2024	10	0.004	4.89	0.16–8.19	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chlorine (ppm)	2024	[4.0 (as Cl2)]	[4 (as Cl2)]	0.70	0.50–0.90	No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2024	2.0	1	0.34	0.33–0.35	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
HAA5 [sum of 5 haloacetic acids] (ppb)	2024	60	NA	2.73	1.40–5.00	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] - Stage 1 (ppb)	2024	80	NA	13.7	7.8-24.5	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community. Lead and Copper Monitoring is conducted every 3 years.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	RANGE LOW-HIGH	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2023	1.3	0.3	0.24	ND-0.26	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2023	15	1.2	ND	ND-0.01	0/30	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	2025	1.3	0.3	0.2	ND-0.48	0/30	No	Special Lead and Copper monitoring was conducted in January 2025
Lead (ppb)	2025	15	0.2	ND	ND	0/30	No	Special Lead and Copper monitoring was conducted in January 2025

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2024	500	NS	15.33	11.00–19.00	No	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µS/cm)	2024	1,600	NS	410	380–460	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2024	500	NS	29	25–35	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2024	1,000	NS	236.67	220–270	No	Runoff/leaching from natural deposits



UNREGULATED SUBSTANCES [1]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Calcium (ppm)	2024	49.80	41.60–60.50	Abundant naturally occurring element
Hardness (grains/gal)	2024	8.87	7.43–10.76	Naturally occurring calcium
Hardness (ppm)	2024	151.67	127.00–184.00	Naturally occurring calcium
Magnesium (ppm)	2024	6.61	5.60–7.96	Abundant naturally occurring element
pH, Laboratory (units)	2024	7.99	7.50–8.50	Hydrogen ion concentration
Potassium (ppm)	2024	2.90	2.70–3.10	Runoff or leaching from natural deposits
Sodium (ppm)	2024	29.00	25.00–35.00	Naturally occurring

[1] Unregulated contaminant monitoring helps the U.S. EPA and SWRCB determine where certain contaminants occur and whether the contaminants need to be regulated.

Definitions

90th percentile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable.

ND (Not Detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard.

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

ppb (µg/L) (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (mg/L) (parts per million): One part substance per million parts water (or milligrams per liter).

ppt (ng/L) (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

Lead in Home Plumbing

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. City of Lakewood is responsible for providing high-quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter certified by an American National Standards Institute-accredited certifier to reduce lead is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure it is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling does not remove lead from water.

Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, or doing laundry or a load of dishes. If you have a lead or galvanized service line requiring replacement, you may need to flush your pipes for a longer period. If you are concerned about lead and wish to have your water tested, contact the City of Lakewood Water Resources Department at (562) 866-9771, extension 2700, during regular business hours. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at epa.gov/safewater/lead.

To address lead in drinking water, public water systems were required to develop and maintain an inventory of service line materials by October 16, 2024. Developing an inventory and identifying the location of lead service lines (LSL) is the first step for beginning LSL replacement and protecting public health. The lead service inventory may be accessed at **Lakewoodca.gov/leadandcopper**. Please contact us if you would like more information about the inventory or any lead sampling that has been done.

Source Water Assessment

Assessments of the city's drinking water sources examined the potential vulnerability of each well to contaminants that could enter the water supply. Our groundwater supply is considered most vulnerable to the following activities: gas stations and repair shops, historic gas station locations, storage tanks, dry cleaners, and permitted National Pollutant Discharge Elimination System/Waste Discharge Requirement discharges. A copy of the complete assessment is available at the Lakewood City Clerk's office at 5050 Clark Avenue. You may request a summary of the assessment by contacting the Lakewood Department of Water Resources at (562) 866-9771, extension 2700, during regular office hours.