



2023

ANNUAL WATER QUALITY REPORT



Proudly presented by

Long Beach Utilities
Award Winning Members of
Partnership for Safe Water
(American Water Works Association)
PWS ID#: 1910065

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2023

Consumer Confidence Report (CCR)

Long Beach Utilities (LBU) is pleased to share that your tap water meets all drinking water standards set by the United States Environmental Protection Agency (EPA) and the State of California Water Resources Control Board. This report summarizes the drinking water quality in the City of Long Beach for 2023.



Message from the General Manager

Laboratory analysts at our GWTP perform 60,000 to 70,000 water quality tests around the clock, every day of every year to ensure we continue to meet or exceed all federal and state water quality standards.

Year after year, Long Beach Utilities employees work tirelessly to provide high quality and safe drinking water to nearly 500,000 community members. 2023 was no different, especially as we formed a new department known as Long Beach Utilities. In late 2022, Long Beach voters elected to have a consolidated public utilities department by approving a change to the City Charter. Long Beach Utilities now oversees the City's water, natural gas, and sewer utility services. This is our first water quality report since the merger, and the data shows we have been able to provide the same exceptional water quality without missing a beat. A year in to merging our underground utilities, we have reduced impacts to streets through better coordination of pipeline repairs and have improved our customer service. In fact, a recent U.S. Water Utility Residential Customer Satisfaction Study ranked Long Beach Utilities as a top ten utility provider among customers in the western region based on water quality, affordability, and customer service.

Every day, Long Beach Utilities treats 32 million gallons of drinking water at the Long Beach Groundwater Treatment Plant (GWTP) and distributes this water after blending it with imported water to 90,000 households and businesses throughout the city of Long Beach. The GWTP also hosts four laboratories with a California Environmental Laboratory Accreditation as a Certified Water Quality Laboratory.

As we look to create a drought tolerant future, Long Beach Utilities is working toward augmenting local groundwater basins with recycled water to increase the city's access to groundwater, which is more drought resistant compared to traditional imported water sources, so that we may reduce our reliance on comparatively expensive imported water. This shift in our portfolio of water sources will ensure more local control and help stabilize water rate increases in the future with the goal of continuing our strong history of providing safe, clean, and reliable drinking water to all customers at an affordable cost. Stay tuned to learn more about our findings by following us on social media @lbutilities, participating in one of our conservation workshops, or connecting with us at one of the many community events we attend. Of course, you can also visit us 24/7 at our new website at LBUtilities.org.

Long Beach Utilities continues to welcome you to join us at our Board of Utilities Commissioners meetings, held twice monthly. You are our partners, and we welcome your comments and feedback.

Thank you for your time and interest in the 2023 Annual Water Quality Report.

Sincerely,

Chris Garner

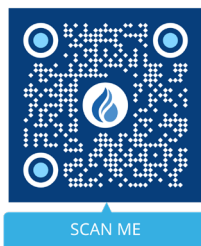
Consumer Confidence Report Delivery

The **Consumer Confidence Report** is an annual drinking water quality report mandated by the State of California via the Safe Drinking Water Act (SDWA), a federal law requiring all public water systems to provide water quality information to every customer. The purpose of this annual CCR, also referred to as the Water Quality Report, is to inform Long Beach customers about the sources of your drinking water, the quality of drinking water, and to outline the water delivery process for businesses and homes.

Long Beach Utilities has also published the 2023 CCR electronically at [LBUtilities.org](https://lbutilities.org). If you prefer to receive a hard copy of the CCR, please contact the Laboratory Services Officer at **(562) 570-2479** or visit your neighborhood Long Beach Library branch.

Public comment on this report or any other issue related to Long Beach Utilities may be shared at a regularly scheduled Long Beach Public Utilities Commission meeting. Meetings are held on the first and third Thursday of every month, starting at 9:00 a.m. and are hosted at the Long Beach Administration Building, 1800 E. Wardlow Road, Long Beach, CA 90807. The building is conveniently located near four Long Beach Transit Bus routes: 21, 23, 71, and 131. Free visitor parking is available.

For more information, please scan the QR code using the camera on your smart mobile device.



Long Beach Drinking Water Sources

In 2023, approximately 55 percent of the potable water supplied by Long Beach Utilities was sourced by local groundwater. The remaining 45 percent was supplied through purchased, imported surface water.

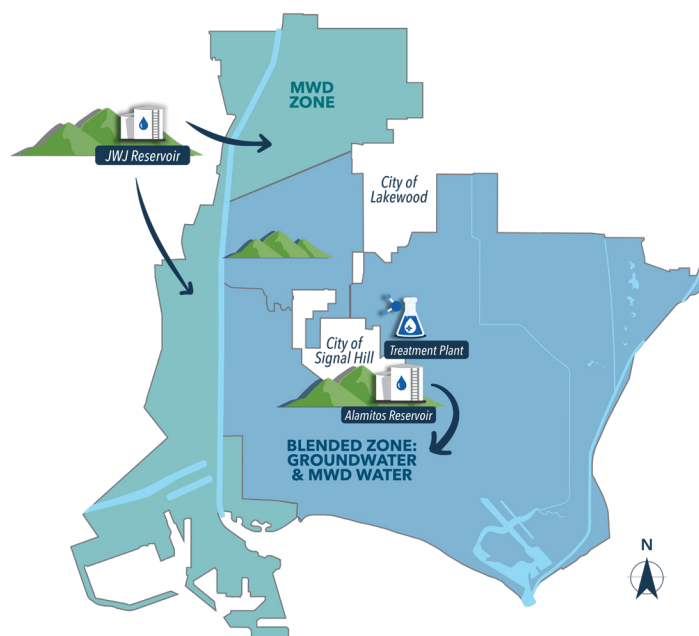
Groundwater treated at the Long Beach GWTP is sourced from the Central Basin and extracted via groundwater wells located throughout portions of Long Beach that sit atop the groundwater aquifer. The aquifer is recharged by rain and snowmelt that flow through washes and creeks into the San Gabriel River and Whittier Narrows before percolating into the underground aquifer.

Long Beach Utilities also purchases imported water from the Metropolitan Water District of Southern California (MWD). MWD imports water into southern California via the Colorado River Aqueduct, which brings in water from the Colorado River, and the State Water Project, which brings in water from Sacramento-San Joaquin Delta.

Groundwater and imported water are mixed together, or “blended,” at the Long Beach GWTP prior to distribution to the majority of Long Beach’s service area. The quality of treated groundwater and purchased surface water surpasses federal and state drinking water standards. Water quality standards are established at the federal and state levels of government with the U.S. EPA setting federal level water quality standards, and the State Water Resources Control Board, Division of Drinking Water (DDW) setting California water quality standards.

Drinking water distribution in the Long Beach service area is divided into two areas: the MWD Zone, which primarily receives imported water; and the Blended Zone, which receives a combination of treated groundwater and imported water. From time to time, Long Beach Utilities may change the percentage of blends in its water system. When this happens, customers may notice changes in the associated mineral content, often referred to as “hardness,” of the water. The change in mineral content does not change the quality of water; Long Beach’s tap water remains safe to drink.

Regardless of the area in Long Beach you may live or work in, **Long Beach Utilities is committed to providing you with water that meets or surpasses all drinking water quality regulations at the most reasonable cost.**



The above figure shows the two drinking water distribution zones in Long Beach.

Source Water Assessment

As required under the 1996 Safe Drinking Water Act amendments, a source water assessment must be completed for all active drinking water sources. The goal of the source water assessment is to identify the most likely sources of threat to water quality, based on the distance and the likelihood of the potential contaminant reaching to the source water itself.

All source water is subject to potential threats. Long Beach Utilities performs extensive water quality monitoring at every active groundwater well from which we source water. Our centralized treatment process safely and reliably treats groundwater to ensure it meets all state and federal drinking water standards prior to releasing the water into our drinking water distribution system.

In 2023, Long Beach Utilities purchased water from MWD and the City of Lakewood. MWD completed a source water assessment of its Colorado River and State Water Project water supplies in December 2002. The Colorado River water supplies are most vulnerable to stormwater runoff and from increasing recreational activity and wastewater discharge. State Water Project water supplies are considered most vulnerable to urban and stormwater runoff, as well as wildlife, agriculture, and wastewater discharges. For a copy of the assessment, please visit www.mwdh2o.com to learn how MWD is preventing source water pollution and implementing safety measures of its source water.

The City of Lakewood's Department of Water Resources completed an assessment in 2003 of all drinking water wells that served Lakewood's drinking water system. These sources are considered most vulnerable to current and historic gas stations, repair shops, storage tanks, and dry cleaners. A copy of the complete assessment is available at the Lakewood City Clerk's Office, 5050 Clark Ave., or by contacting the Lakewood Department of Water Resources at (562) 866-9771 ext. 2700.

Long Beach Utilities completed a new source water assessment on active groundwater wells located within the City of Long Beach in July 2012. New wells that are constructed after this date must also undergo a similar assessment. The 2012 assessment concluded that all active Long Beach groundwater wells are considered most vulnerable by the sewer collection system. Some existing groundwater wells are also vulnerable to exposure from gas stations, dry cleaners, leaking underground fuel tanks, airport activities, metal plating, finishing and fabrication, plastic and synthetics producers, and landfills. **Although the wells are considered vulnerable to these activities, Long Beach Utilities performs extensive water quality monitoring for each active well and has not detected any contamination by these sources.** It is noteworthy to point out that the physical barrier constructed around the well has a high effectiveness against potential contamination.

Information About Drinking Water Contaminants

Drinking water sources for tap water and bottled water originate from rivers, lakes, streams, ponds, reservoirs, springs, and wells. As the surface or groundwater is extracted, it dissolves naturally-occurring minerals – sometimes including radioactive material – and can also pick up substances resulting from animal and human activity.

Contaminants in source water prior to treatment may include:



Microbial Contaminants

Viruses and bacteria may come from sewage treatment plants, septic systems, agricultural and livestock operations, and wildlife.



Pesticides and Herbicides

Chemicals that come from a variety of sources such as agriculture operations, urban storm water runoff, and residential uses.



Radioactive Materials

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



Inorganic Chemicals

Chemicals such as salts and metals that can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.



Organic Chemicals

Chemicals such as synthetic and volatile organic chemicals (that are byproducts of industrial processes and petroleum production) can also come from gas stations, urban storm water runoff, agricultural applications, and septic systems.

To ensure tap water is safe to drink, the U.S. EPA and the State Water Resources Control Board set regulations that limit the number of certain contaminants in water provided by public water systems. State regulations also establish limits for contaminants in bottled water.

Drinking water, including bottled water, may reasonably be expected to contain a small amount of some contaminants. The presence of contaminants does not necessarily indicate that your drinking water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at 1(800) 426-4791.



Immunocompromised People

People with an impaired immune system are more vulnerable to contaminants in drinking water than the general population. Immunocompromised people, such as those being treated with chemotherapy, who have undergone organ transplants, who have HIV/AIDS or other immune system disorders, as well as older adults and infants, can be particularly at risk from infections. Immunocompromised people should seek advice about drinking water from their healthcare providers. U.S. EPA and Federal Centers for Disease Control guidelines on ways to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1 (800) 426-4791.

Sampling Results

In 2023, Long Beach Utilities collected and conducted water quality testing on more than 62,200 samples throughout the city to look for radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. We are proud to report 2023 testing shows all contaminants are below the maximum contaminant level, or MCL. Although the presence of these substances in microscopic amounts does not indicate a health risk, each year we provide this report to show the list of drinking water contaminants detected.

Unless otherwise noted, data presented in this report is from testing performed during January 1, 2023, to December 31, 2023. State regulations require water agencies to monitor 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.



LBU Water Quality Data 2023

Regulated Primary Health Standards

PARAMETER (UNIT OF MEASURE)	Goals	Regulatory Levels			MWD ZONE (114)			BLENDED ZONE (325)			Typical Sources of Contamination
	PHG (MCLG)	MCL	2 nd MCL	NL (AL)	AVG	MAX	RANGE	AVG	MAX	RANGE	
Clarity											
Turbidity ¹ (NTU)	NA	TT	5	NS	ND	0.2	ND – 0.2	ND	0.1	ND – 0.1	Soil runoff
Turbidity ¹ (Lowest monthly percent of samples meeting limit) = 100%											
Microbiology (% Positive)											
Coliform Assessment ²	N/A	TT	NS	NS	Citywide: Highest Monthly - ND; Range ND						Naturally present in the environment
Inorganic Chemicals											
Aluminum (ppb)	600	1000	200	NS	49	59	30 - 59	14	37	ND - 37	Erosion of natural deposits, added during water treatment
Arsenic (ppb)	0.004	10	NS	NS	0.9	1.5	ND – 1.5	0.5	0.9	ND – 0.9	Erosion of natural deposits, runoff from orchards, and industrial process
Copper ³ (ppb)	300	NS	1000	(1300)	Citywide: 90 th percentile = 265 ppb, 74 sites sampled. 0 sites over Action Level (AL = 1300)						Corrosion of plumbing, erosion of natural deposits
Fluoride (ppm)	1	2	NS	NS	0.68	0.72	0.63 - 0.72	0.71	0.74	0.66 - 0.74	Erosion of natural deposits, supplemental additive
Lead ³ (ppb)	0.2	NS	NS	(15)	Citywide: 90 th percentile = <DLR, 74 sites sampled. 0 sites over Action Level (AL = 15)						Internal corrosion of household plumbing, erosion of natural deposits

Radioactive Contaminants

PARAMETER (UNIT OF MEASURE)	Goals	Regulatory Levels			MWD ZONE (114)			BLENDED ZONE (325)			Typical Sources of Contamination
	PHG (MCLG)	MCL	2 nd MCL	NL (AL)	AVG	MAX	RANGE	AVG	MAX	RANGE	
Gross Alpha (GA)* Particle Activity (pCi/L)	(0)	15	NS	NS	MWD plant effluents Gross Alpha detected in the range of ND - 5 pCi/L. ⁴ Gross Alpha in the MWD Zone of LBU distribution is at 1.5 pCi/L. Gross Alpha detected in the Blended Zone of LBU distribution is at 3.5 pCi/L.						Erosion of natural deposits
Gross Alpha (GB)* Particle Activity (pCi/L)	(0)	50	NS	NS	MWD plant effluents Gross Beta detected in the range of ND - 6 pCi/L. ⁴ Gross Beta in the MWD Zone of LBU distribution is at 3.2 pCi/L. Gross Beta detected in the Blended Zone of LBU distribution is at 2 pCi/L.						Decay of natural and manmade deposits
Uranium (pCi/L)*	0.43	20	NS	NS	MWD plant effluents Uranium detected in the range of ND - 3 pCi/L. ⁴ Uranium detected in the MWD Zone of LBU distribution is at 1.3 pCi/L. Uranium detected in the Blended Zone of LBU distribution is at 0.8 pCi/L.						Erosion of natural deposits

*Certain minerals are radioactive and may emit forms of radiation known as alpha, beta, and photons. Some people who drink water containing alpha, beta, and photon emitters in excess of the MCL over many years may have an increased risk of cancer. California considers 50 pCi/L to be the level of concern for beta particles.

Unregulated Contaminants with NL, but no MCLs

PARAMETER (UNIT OF MEASURE)	Goals	Regulatory Levels			MWD ZONE (114)		BLENDED ZONE (325)		Typical Sources of Contamination
	PHG (MCLG)	MCL	2 nd MCL	NL (AL)	DS*	RANGE	DS*	RANGE	
Boron ⁵ (ppb)	NS	NS	NS	1000	100	NA	82	NA	Naturally present in the environment
Chlorate ⁵ (ppb)	NS	NS	NS	800	45	NA	23	NA	Byproduct of drinking water chlorination, industrial processes
Nitrosodimethylamine (NDMA) ⁵ (ppt)	3	NS	NS	10	2.2	MWD System wide ⁴ : ND – 5.3	3.2	NA	Formed through natural, industrial, and disinfection processes

*DS = Distribution system; Single value from annual monitoring.

Unregulated Chemicals Requiring Monitoring Under Federal UCMR4: 2018 - 2020

PARAMETER (UNIT OF MEASURE)	HA	MCL (NL)	PHG	MWD ZONE (114)			WTP EFFLUENT			WTP INFLUENT		
	PPB	PPB	PPB	AVG	MAX	RANGE	AVG	MAX	RANGE	AVG	MAX	RANGE
Germanium (ppb)*	NS	NS	NS	ND	ND	ND	0.42	0.43	0.41 – 0.43	0.5	0.55	0.45 – 0.55
Manganese (ppb)*	NS	50	NS	1.5	2.5	0.49 – 2.5	1.9	2.6	0.95 – 2.6	1.1	1.3	0.86 – 1.3
HAA5 (ppb)*	NS	60	NS	10.59	14.74	6.85 – 14.74	10.4	13.17	8.67 – 13.17	NA	NA	NA
HAA6Br (ppb)*	NS	NS	NS	10.16	12.66	6.7 – 12.66	9.74	11.63	7.22 – 11.63	NA	NA	NA
HAA9 (ppb)*	NS	NS	NS	17.7	23.5	11.5 – 23.5	17.4	21.1	15.0 – 21.1	NA	NA	NA

Unregulated contaminant monitoring under the U.S. EPA helps to determine where certain contaminants occur and whether the contaminants need to be regulated. EPA uses the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and did not have a health base standard set under SDWA.

*Germanium, Manganese, HAAS, HAA6Br, and HAA9 were detected under the UCMR4 Unregulated Contaminant Monitoring in 2018-2020. Long Beach Utilities will report these results each CCR year for five years (2020, 2021, 2022, 2023, and 2024).

HA = Health Advisories; WTP = Water Treatment Plant, NA = Not Applicable



Disinfection Byproducts and Maximum Residual Disinfectants

PARAMETER (UNIT OF MEASURE)	GOALS	Regulatory Levels			MWD ZONE (114)/ BLENDED ZONE (325)	Typical Sources of Contamination
	PHG (MCLG)	MCL	2 nd MCL	NL (AL)		
Bromate (ppb)	0.1	10	NS	NS	MWD Jensen plant effluent highest running annual average (RAA) is at 7.6 ppb and LBU distribution system highest RAA is 0.38 ppb in 2023	Byproduct of drinking water ozonation
Haloacetic Acids (HAA5) (ppb)	NS	60	NS	NS	Citywide: 14.8 ppb highest LRAA, range: 7.4 - 18 ppb	Byproduct of drinking water chlorination
Total-Trihalomethanes (TTHM) (ppb)	NS	80	NS	NS	Citywide: 47.3 ppb highest LRAA, range: 27.7 - 59 ppb	Byproduct of drinking water chlorination
Chloramines (ppm)	MRDL = 4.0 (as CL ₂)	MRDLG = 4.0 (as CL ₂)	NS	NS	Citywide: 2.19 ppm highest running annual average, HRAA; range of chloramine in distribution system: 0.92 - 2.90 ppm	Drinking water disinfectant added during treatment

Secondary Drinking Water Standards - Aesthetic Standards: 2023

PARAMETER (UNIT OF MEASURE)	2 nd MCL	MWD ZONE (114)			BLENDED ZONE (325)			Typical Sources of Contamination
		AVG	MAX	RANGE	AVG	MAX	RANGE	
Chloride (ppm)	500	67	110	29 - 110	46	71	36 - 71	Runoff/leaching from natural deposits; seawater influence
Color (CU)	15	ND	2	ND - 2	2	4	ND - 4	Naturally occurring organic materials
Specific Conductance (µS/cm)	1600	640	1080	300 - 1080	500	740	380 - 740	Substances that form ions when dissolved in water; seawater influence
Odor ⁵ (TON)	3	ND	ND	NA	ND	ND	NA	Naturally occurring organic materials
Sulfate (ppm)	500	130	250	47 - 250	50	110	19 - 110	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	1000	380	650	180 - 650	290	420	250 - 420	Runoff/leaching from natural deposits

Additional Constituents of Interest: 2023

PARAMETER (UNIT OF MEASURE)	MWD ZONE (114)			BLENDED ZONE (325)		
	AVG	MAX	RANGE	AVG	MAX	RANGE
Alkalinity (ppm)	89	129	57 - 129	127	139	89 - 139
Calcium (ppm)	38	72	17 - 72	27	41	19 - 41
Hardness (ppm)	155	290	71 - 290	92	164	58 - 164
Hardness (gpg)	9.1	17	4.1 - 17	5.4	9.6	3.4 - 9.6
Magnesium (ppm)	15	27	7 - 27	6	15	2 - 15
pH (field)	8.42	8.86	7.94 - 8.86	8.23	8.34	8.05 - 8.34
Potassium (ppm)	3.5	5.2	2.4 - 5.2	2.1	3.7	1.4 - 3.7
Silica (ppm)	9.9	13	7.7 - 13	16	21	11 - 21
Sodium (ppm)	63	100	32 - 100	65	78	50 - 78



Footnotes

1. Turbidity is a measure of the cloudiness of the water. LBU monitors turbidity because it is a reliable indicator of the effectiveness of our filtration system.
2. The Revised Total Coliform Rule established the Coliform Treatment Technique using a "find-and-fix" approach. When positive coliform samples in any given month is above 5 percent, Level 1 Assessment is triggered and corrective actions need to be taken.
3. Copper and lead are regulated as Treatment Technique under the Lead and Copper Rule, which requires water samples to be collected at the consumers' tap. If action levels are exceeded in more than 10 percent of consumers' taps, water systems must take steps to reduce these levels. Compliance lead and copper monitoring was conducted in 2022 at 74 consumer taps. The values reported comply with the Lead and Copper Rule. The detection limit for reporting for lead is 5 ppb. Long Beach Utilities will report this same result each CCR year (2022, 2023, and 2024) until the next set of samples are taken.
4. Data from MWD's 2023 Treatment Plant Effluents and Distribution System.
5. Single value from LBU's annual monitoring.

Water Quality Standards: Definitions, Acronyms, and Abbreviations



What are water quality standards?

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

AWQR: Annual Water Quality Report

DLR (Detection Limit for Purpose of Reporting): The level at which a contaminant is detected for compliance reporting determination

HAA5: Sum of five regulated HAAs – monochloroacetic acid, monobromoacetic acid, dichloroacetic acid, dibromoacetic acid, trichloroacetic acid

HAA6Br: Sum of six regulated HAAs – bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, dibromoacetic acid, monobromoacetic acid, tribromoacetic acid

HAA9: Sum of nine regulated HAAs – monochloroacetic acid, monobromoacetic acid, dichloroacetic acid, dibromoacetic acid, trichloroacetic acid, bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, tribromoacetic acid

HRAA: Highest running annual average

LRAA: Locational running annual average

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, or SMCLs, are set to protect the odor, taste, and appearance of drinking water.

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.

NL (Notification Level): NLs are health-based advisory levels established by State Board for chemicals in drinking water that lack MCLs. When chemicals are found at concentrations greater than their notification levels, certain requirements and recommendations apply.

NS: No standard

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

PFAS: Polyfluoroalkyl substances

PFOA: Perfluorooctanoic acid

PFOS: Perfluorooctane sulfonic acid

PFBS: Perfluorobutanesulfonic acid

PFHxS: Perfluorohexanefulfonic acid

RTCR: Revised Total Coliform Rule

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water

What do the measurements mean?

Grains/Gal (Grains per gallon): Grains of compound per gallon of water

mg/L: Milligram per liter, or ppm

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

NA: Not applicable

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

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water

TON (Threshold Odor Number): A measure of odor in water

PPT (Parts per trillion): One part substance per trillion parts of water, or nanograms per liter

PPB (Parts per billion): One part substance per billion parts of water, or micrograms per liter

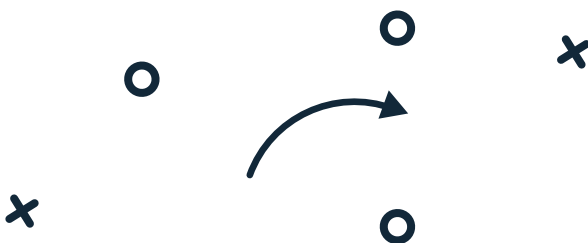
PPM (Parts per million): One part substance per million parts of water, or milligrams per liter

What are water quality goals?

MCLG (Maximum Contaminant Level Goal): Set by the U.S. EPA, the level of a contaminant in drinking water below which there is no known or expected risk to health.

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.

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 Office of Environmental Health Hazard Assessment (OEHHA).



Other Information



Cryptosporidium

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most used filtration method cannot guarantee 100 percent removal. Annual monitoring of Cryptosporidium in our distribution water system indicates no detection for Cryptosporidium.

Boron

Boron is naturally present in the environment. Based on studies in laboratory animals, exposure to high concentrations of boron in excess of the notification levels, or NL, by women who are pregnant may increase their risk of having babies with developmental effects. In 2023, the level of boron found in Long Beach's water was 100 ppb, which is well below the state's NL of 1,000 ppb.

Fluoridation

Fluoride is one of the most plentiful elements on Earth and occurs naturally in water supplies throughout California. In 1971, the Long Beach City Council mandated that Long Beach Water Department add fluoride to its water. In 2015, the U.S. Public Health Services revised the recommended fluoride concentration for drinking water to 0.7 mg/L, or parts per million, to maintain cavity prevention benefits and reduce the risk of dental fluorosis. In 2023, the average Fluoride in the LBU distribution system is at 0.7 mg/L.

Blending fluoridated water from different sources does not increase total fluoride levels in drinking water. Fluoridated water does not change the taste, color, or odor of your water. Parents should consult with their child's doctor or dentist for guidance on supplementing fluoride. More information about fluoridation, oral health, and current issues is available at [Waterboards.ca.gov](https://www.waterboards.ca.gov).



Lead and drinking water

Elevated levels of lead in water can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily derived from materials and components associated with service lines and home plumbing. It is possible that lead levels in your home may be higher or lower than levels found in your neighbors' home because of the materials used in your home's plumbing. Long Beach Utilities is responsible for providing high quality drinking water to homes and businesses, but we cannot control the variety of materials used in home plumbing components.

In addition to the 2022 Lead and Copper Monitoring Rule compliance sampling at 74 customer taps, Long Beach Utilities also conducted compliance monitoring under the 2018 Division of Drinking Water Order. We partnered with three private schools and 72 public schools in the Long Beach Unified School District for lead testing at drinking fountains and food preparation faucets in 2018 and 2019. The results are in compliance with the Lead and Copper Rule.

When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. The excess water can be captured for non-potable use.

If you are concerned about lead in your water, we recommend requesting a water test by Long Beach Utilities or by a private laboratory. 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 1 (800) 426-4791 or online at

epa.gov/ground-water-and-drinking-water.



PFAS

In March 2019, California Division of Drinking Water issued an order to all water systems to perform four quarterly monitoring for perfluorooctanoic acid, or PFOA, and perfluorooctane sulfonic acid, or PFOS – together known as PFAS. Long Beach Utilities has 14 groundwater wells that were deemed vulnerable to these substances and began monitoring in 2019. The established notification levels for these two substances are 6.5 ppt for PFOS and 5.1 ppt for PFOA. Long Beach Utilities has not detected these substances in our groundwater since monitoring began.

In October 2022, California Division of Drinking Water issued an order to the public water system to monitor water system specific sources quarterly beginning with the first calendar quarter of 2023 for a list of twenty-five PFAS. The established notification levels for the four specific PFAS are 500 ppt for PFBS, 3 ppt for PFHxS, 6.5 ppt for PFOS and 5.1 ppt for PFOA. LBU have been monitoring two designated wells – Citizens 9 and Commission 25 – for four quarters with no detected PFAS results.

The fifth Unregulated Contaminant Monitoring Rule (UCMR 5) was published on December 27, 2021. UCMR 5 requires Long Beach Utilities to monitor four consecutive calendar quarters of point of entry to the distribution system for 29 per- and polyfluoroalkyl substances (PFAS). Sample collection started in April 2023 and will continue in 2024. Long Beach Utilities has not detected these substances in our system since monitoring began.

On April 10, 2024, the US EPA announced the final drinking water standards for six PFAS. These new standards are legally enforceable levels, called Maximum Contaminant Levels (MCLs), for six PFAS in drinking water. PFOA, PFOS, PFHxS, PFNA, and HFPO-DA as contaminants with individual MCLs, and PFAS mixtures containing at least two or more of PFHxS, PFNA, HFPO-DA, and PFBS using a Hazard Index MCL to account for the combined and co-occurring levels of these PFAS in drinking water. EPA also finalized health-based, non-enforceable Maximum Contaminant Level Goals (MCLGs) for these PFAS. Because Long Beach Utilities has not detected these substances in our system since monitoring began, no changes to our drinking water distribution system need to be made at this time. The LBU will continue to monitor and report as required by state and federal laws.

Disinfectants and disinfection byproducts (trihalomethanes, haloacetic acids and bromate)

Disinfection of drinking water was one of the major public health advances in the 20th Century. It was a major factor in reducing waterborne diseases caused by pathogenic bacteria and viruses. Long Beach Utilities achieves primary disinfection with free chlorine and utilizes chloramine as a secondary disinfectant in the distribution system. We carefully monitor the amount of disinfectant, adding the lowest quantity of chloramine necessary to protect the safety of your water throughout the distribution system. However, chlorine and chloramine can react with naturally occurring materials in the water to form disinfection byproducts, or DBPs.

Total trihalomethanes, or TTHMs, and haloacetic acids, or HAA5, are the most common DBPs formed by the disinfectant process and are suspected to be carcinogenic in humans. Some people consuming water containing TTHM in excess of the maximum contaminant level, or MCL, over many years may experience liver, kidney or central nervous system problems and may have an increased risk of cancer.

The values for TTHMs in the 2023 distribution system ranged from 27.7-59 ppb, with the highest locational running average, or LRAA, of 47.3 ppb. These values are well below the MCL of 80 ppb. The 2023's distribution system HAA5 concentrations ranged from 7.4 - 18 ppb, and the highest LRAA was 14.8 ppb. This is also well below the MCL of 60 ppb.

Bromate, which is also a disinfection byproduct, is formed when ozone reacts with naturally occurring bromide found in the source water. Systems using ozone to treat drinking water are required to monitor for bromate at the treatment plant's effluent. While Long Beach Utilities does not ozonate our water, the purchased treated surface water from MWD may have detectable levels of bromate.

Exposure to high concentrations of bromate over a long period of time has been shown to cause cancer in rats and have kidney effects in laboratory animals. The California Office of Environmental Health Hazard Assessment has suspected that high concentrations of bromate may have potential reproductive effects in humans. The EPA established an MCL of 10 ppb to prevent non-cancer health effects from long-term exposure in humans.

In 2023, MWD drinking water bromate levels leaving the treatment plant were reported to be below DLR of 5 ppb on a highest running annual average basis, HRAA. Long Beach Utilities can usually decrease the bromate levels in most of our system by blending with our treated groundwater. In 2023, the HRAA for bromate was below the detection limit for reporting of 5 ppb in our distribution system. Long Beach Utilities continues to ensure safe and high-quality drinking water for every customer.

