

**CITY OF LONG BEACH**  
**GROUNDWATER TREATMENT PLANT**  
2950 REDONDO AVE. LONG BEACH, CA 90806

# 2022

## Annual Water Quality Report

**WATER TESTING PERFORMED IN 2022**

### **PROUDLY PRESENTED BY**

**Long Beach Utilities Department**  
Award Winning Members of  
Partnership for Safe Water (AWWA)  
PWS ID#: 1910065

### **Long Beach Board of Utilities Commissioners**

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**LONG BEACH**  
**Utilities**  
Water · Gas · Sewer

# 2022 Consumer Confidence Report

The Long Beach Utilities Department, or LBUD, is pleased to inform you that your tap water met all United States Environmental Protection Agency and State of California drinking water standards for 2022.



## Message from the General Manager

It's been a big year.

We continue to recover and return to normal after the pandemic. We're facing the new realities of "weather whiplash" and a changing climate – going from unprecedented drought to the wettest winter in recent memory.

And, in January, we merged the city's natural gas utility with the water and sewer utilities to form Long Beach Utilities, governed now by the Board of Utilities Commissioners.

We continue to move forward to secure a sustainable water future for our city by increasing our access to reliable, affordable, local groundwater. We broke ground on four new local wells in 2022 and celebrated the start of operation for the first new groundwater well our city has built in 20 years.

We also are striving to find new ways to save every drop, partnering with the Metropolitan Water District, or MWD, on the Pure Water Southern California project to enhance future regional access to recycled water.

Through all the challenges and changes we face, our foundation remains the same: safe, delicious drinking water paired with exceptional customer service.

Your tap water undergoes a multistage treatment process and rigorous quality testing at our state-of-the-art Groundwater Treatment Plant and Water Quality Laboratory. We performed more than 64,500 tests this year, and are proud to say that we continue to meet or exceed all federal and state water quality

standards. Please feel free to contact our Water Quality Laboratory at (562) 570-2479 with any questions or concerns regarding the safety of Long Beach drinking water.

The highly qualified operators and technicians of Long Beach Utilities are as dedicated as ever, providing 24/7 emergency service and addressing customer needs for all three of our utilities: water, natural gas and sewer.

Our commitment to our community also continues to grow.

We have expanded our outreach at local events with our Community Engagement Team. And we continue to grow our Lawn to Garden, Native Plant Parkway and Certified Blue programs, as well as direct install initiatives to help customers in disadvantaged communities use water and natural gas more efficiently.

Long Beach Utilities continues to welcome you, our community, to join us at our Board of Utilities Commissioners meetings. You are our partners, and we welcome your comments and feedback. Visit [LBUtilities.org](http://LBUtilities.org) for more information and meeting schedules.

Thank you for your interest in the 2022 Annual Water Quality Report.

Sincerely,  
Chris Garner



# CCR Delivery

The Consumer Confidence Report, or CCR, is an annual drinking water quality report that the Safe Drinking Water Act, or SDWA, requires public water systems to provide to each customer. The purpose of the CCR, also known as the Water Quality Report, is to inform customers about the quality of their drinking water, where their drinking water comes from, what it takes to deliver water to businesses and homes, and the importance of protecting drinking water sources.

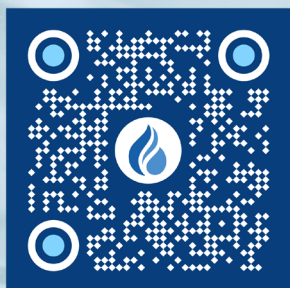
Long Beach Utilities has published the 2022 CCR electronically at [lbwater.org/waterqualityreport](http://lbwater.org/waterqualityreport). If you would prefer to receive a hard copy of the CCR, please contact the Laboratory Services Officer at (562) 570-2479 or visit your neighborhood Long Beach Library branch.

For more information scan here

*Para obtener más información escanee aquí*

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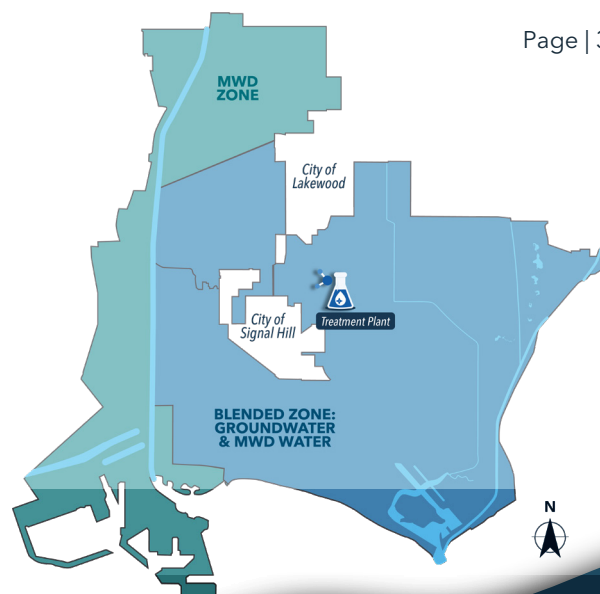
“ WE ARE PROUD TO PROVIDE OUR CUSTOMERS WITH **RELIABLE, AFFORDABLE AND EXCEPTIONAL QUALITY DRINKING WATER.** ”



# Long Beach

## Drinking Water Sources

**In 2022, about 53 percent of the potable water served by Long Beach Utilities was supplied by local groundwater. The remaining 47 percent was supplied through purchased, imported surface water.**



Long Beach Utilities purchases treated surface water from the Metropolitan Water District of Southern California, or MWD, and treats the groundwater pumped from active wells around the Long Beach and Lakewood areas at our Groundwater Treatment Plant, or GWTP. The quality of both the purchased surface water and the treated groundwater exceeds federal and state drinking water standards. The federal regulations are set by the U.S. Environmental Protection Agency, or EPA, and the state standards are set by the State Water Resources Control Board Division of Drinking Water, or State Board.

Two major aqueducts supply the surface waters feeding MWD's five regional treatment plants: the Colorado River Aqueduct and the California Aqueduct. Colorado River water, which has the higher mineral content of the two supplies, is brought into Southern California through the 242-mile-long Colorado River Aqueduct. This aqueduct, constructed and operated by MWD, originates at Lake Havasu in Arizona and terminates in Southern California at Lake Mathews.

State Water Project water, which contains a lower mineral content but higher natural organic matter content, is conveyed through the California Aqueduct. This aqueduct, constructed and operated by the California Department of Water Resources, transfers water originating from Lake Oroville in

Northern California that travels 441 miles to Southern California.

The groundwater treated at Long Beach's GWTP originates from the San Gabriel watershed. The watershed is fed by rain and snowmelt and flows through washes and creeks into the San Gabriel River and Whittier Narrows before percolating into the underground aquifer of the Central Basin area of Los Angeles. The city of Long Beach is a part of the Central Basin service area.

For hydraulic reasons, the Long Beach service area is divided into two main regions: the MWD zone, which primarily receives purchased, treated surface water, and the blended zone, which generally receives a combination of treated groundwater and purchased, treated surface water. From time to time, Long Beach Utilities may change the blends of water in our system. When this happens, residents may notice changes in the associated mineral content, often referred to as "hardness," of the water.

The above figure shows the areas, noted in green, that may experience a change in the water blend.

**No matter where you live or work, we are committed to providing you with water that meets or exceeds all water quality regulations at the most reasonable cost.**



# 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 inventory all potential activities that may degrade the source water quality. In 2022, 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 supplies are most vulnerable to recreation, urban and stormwater runoff and increasing urbanization in watershed and wastewater. State Water Project supplies are considered most vulnerable to urban and stormwater runoff, wildlife, agriculture, recreation and wastewater. For a copy of the assessment, please contact MWD at (213) 217-6850.

The City of Lakewood Department of Water Resources completed an assessment in 2003 of all drinking water wells that served the city's drinking water system. The 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 source water assessment on its active wells in July 2012. New wells that are constructed after this date also undergo a similar assessment. The assessment concluded that all active wells are considered most vulnerable to the sewer collection system. A copy of the complete assessment is available at the Long Beach Utilities Department or by contacting the Laboratory Services Officer at (562) 570-2479.

Depending on location, some wells are considered vulnerable to 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. It is noteworthy to point out that the physical barrier constructed around the well has a high effectiveness against potential contamination.



“ THE GOAL OF THE SOURCE WATER ASSESSMENT IS TO **INVENTORY ALL POTENTIAL ACTIVITIES THAT MAY DEGRADE THE SOURCE WATER QUALITY.** ”

# Information About Drinking Water Contaminants

Drinking water sources for both tap water and bottled water include rivers, lakes, streams, ponds, reservoirs, springs and wells. As the water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals – sometimes including radioactive material – and can also pick up substances resulting from animal and human activity.

Contaminants present 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.



## INORGANIC CHEMICALS

Inorganic chemicals such as salts and metals 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

Pesticides and herbicides can come from a variety of sources such as agriculture operations, urban storm water runoff and residential uses.



## RADIOACTIVE MATERIALS

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



## ORGANIC CHEMICALS

Organic chemicals include synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff, agricultural applications and septic systems.

**To ensure that tap water is safe to drink,** the U.S. EPA and the State Water Resources Control Board set regulations that limit the amount 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 small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.





### Immunocompromised people:

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people, such as those with cancer taking chemotherapy, people who have undergone organ transplants, those 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. For guidelines on ways to lessen the risk of infection by cryptosporidium and other microbial contaminants, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

## Sampling Results

In the past year, we have tested more than 64,500 water samples to look for any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants.

We are proud to report that testing shows all the substances in these tables are below the maximum contaminant level, or MCL.

Although the presence of these substances in microscopic amounts does not necessarily indicate a health risk, each year we provide this report to show the list of drinking water contaminants detected.

Unless otherwise noted, the data presented in these tables are from the testing performed from Jan. 1 to Dec. 31, 2022. The state requires us to monitor 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.



# LBUD Water Quality Data 2022

## 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 <sup>nd</sup> MCL	NL (AL)	AVE	MAX	RANGE	AVE	MAX	RANGE	
<b>CLARITY</b>											
Turbidity <sup>2</sup> (NTU)	NA	TT	5	NS	ND	0.2	ND - 0.2	ND	0.1	ND - 0.1	Soil runoff
Turbidity <sup>2</sup> (Lowest monthly percent of samples meeting limit) = 100%											
<b>MICROBIOLOGY (% POSITIVE)</b>											
Total Coliform Bacteria <sup>4</sup>	(0)	TT	NS	NS	City-wide: Highest Monthly - 0.44%; Range ND - 0.44%					Naturally present in the environment	
<b>INORGANIC CHEMICALS</b>											
Aluminum (ppb)	600	1000	200	NS	134	208	74-208	41	121	ND-121	Erosion of natural deposits, added during water treatment
Arsenic (ppb)	0.004	10	NS	NS	1.8	2.6	1.3-2.6	1.0	2.0	0.5-2.0	Erosion of natural deposits, runoff from orchards and industrial process
Copper <sup>1</sup> (ppb)	300	NS	1000	(1300)	City-wide: 90th percentile = 265, 74 sites sampled 0 sites over Action Level (AL = 1300)					Corrosion of plumbing, erosion of natural deposits	
Fluoride (ppm)	1	2	NS	NS	0.7	0.7	0.6 - 0.7	0.7	0.7	0.6 - 0.7	Erosion of natural deposits, supplemental additive
Lead <sup>1</sup> (ppb)*	0.2	NS	NS	(15)	City-wide: 90th percentile = <DLR, 74 sites sampled 0 sites over Action Level (AL = 15)					Internal corrosion of household plumbing, erosion of natural deposits	

\*In 2022 there were three requests for lead testing from childcare facilities in Long Beach and no request for lead testing from schools in the Long Beach Unified School District. All lead testing results for childcare facilities were below DLR.

## Radiologicals

PARAMETER (UNIT OF MEASURE)	GOALS	REGULATORY LEVELS			MWD ZONE (114)			BLENDED ZONE (325)			TYPICAL SOURCES OF CONTAMINATION
	PHG (MCLG)	MCL	2 <sup>nd</sup> MCL	NL (AL)	AVE	MAX	RANGE	AVE	MAX	RANGE	
Gross Alpha (GA) <sup>1</sup> Particle Activity (pCi/L)	(0)	15	NS	NS	MWD plant effluents Gross Alpha detected in the range of ND-3 pCi/L <sup>5</sup> . Gross Alpha in the MWD Zone of LBUD distribution is at 5.1 pCi/L. Gross Alpha detected in the Blended Zone of LBUD distribution is at 4.8 pCi/L.					Erosion of natural deposits	
Gross Beta (GB) <sup>1</sup> Particle Activity (pCi/L)	(0)	50	NS	NS	MWD plant effluents Gross Beta detected in the range of ND-9 pCi/L <sup>5</sup> . Gross Beta was not detected in the Blended Zone of LBUD distribution.					Decay of natural and manmade deposits	
Uranium (pCi/L) <sup>1</sup>	0.43	20	NS	NS	MWD plant effluents Uranium detected in the range of 1-3 pCi/L <sup>5</sup> . Uranium detected in the MWD Zone of LBUD distribution is at 2.8 pCi/L. Uranium detected in the Blended Zone of LBUD distribution is at 0.72 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 <sup>nd</sup> MCL	NL (AL)	DS*	RANGE	DS*	RANGE	
Boron <sup>3</sup> (ppb)	NS	NS	NS	1000	130	NA	130	NA	Naturally present in the environment
Chlorate <sup>3</sup> (ppb)	NS	NS	NS	800	65	NA	26	NA	Byproduct of drinking water chlorination; industrial process
Nitrosodimethylamine (NDMA) <sup>3</sup> (ppt)	3	NS	NS	10	3.1	MWD system-wide <sup>5</sup> : ND-3.3	4.1	NA	Formed through natural, industrial and disinfection process

\*DS = Distribution System – single value from annual monitoring



# LBUD Water Quality Data 2022

## 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	AVE	MAX	RANGE	AVE	MAX	RANGE	AVE	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	15.5 - 21.1	NA	NA	NA

\*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 (2020, 2021, 2022, 2023 and 2024) for five years.

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

## 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 <sup>nd</sup> MCL	NL (AL)			
Bromate (ppb)	0.1	10	NS	NS	MWD Weymouth plant effluent running annual average (RAA) and LBUD distribution system RAA is ND in 2022	Byproduct of drinking water ozonation	
Haloacetic Acids (HAA5) (ppb)	NS	60	NS	NS	City-wide: 11.3 ppb highest LRAA, range: 2.7-18 ppb	Byproduct of drinking water chlorination	
Total-Trihalomethanes (TTHM) (ppb)	NS	80	NS	NS	City-wide: 41 ppb highest LRAA, range: 26-54 ppb	Byproduct of drinking water chlorination	
Chloramines (ppm)	MRDL=4.0 (as Cl <sub>2</sub> )	MRDLG=4.0 (as Cl <sub>2</sub> )	NS	NS	City-wide: 2.08 ppm highest running annual average, HRAA Range of chloramine in distribution system: 0.5-2.81 ppm	Drinking water disinfectant added during treatment	

## Secondary Drinking Water Standards: 2022 Aesthetic Standards

PARAMETER (UNIT OF MEASURE)	2 <sup>ND</sup> MCL	MWD ZONE (114)			BLENDED ZONE (325)			TYPICAL SOURCES OF CONTAMINATION
		AVE	MAX	RANGE	AVE	MAX	RANGE	
Chloride (ppm)	500	96	102	81 - 102	55	92	37 - 92	Runoff/leaching from natural deposits; seawater influence
Color (CU)	15	ND	3	ND - 3	2	4	ND - 4	Naturally-occurring organic materials
Specific Conductance (µS/cm)	1600	990	1100	670 - 1100	610	1000	490 - 1000	Substances that form ions when dissolved in water; seawater influence
Odor <sup>3</sup> (TON)	3	1	1	NA	ND	ND	NA	Naturally-occurring organic materials
Sulfate (ppm)	500	210	230	130 - 230	79	210	35 - 210	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	1000	610	660	440 - 660	360	590	270 - 590	Runoff/leaching from natural deposits

# LBUD Water Quality Data 2022

## Additional Constituents of Interest 2022

PARAMETER (UNIT OF MEASURE)	MWD ZONE (114)			BLENDED ZONE (325)		
	AVE	MAX	RANGE	AVE	MAX	RANGE
Alkalinity (ppm)	124	133	88 - 133	135	143	125 - 143
Calcium (ppm)	64	68	36 - 68	35	67	25 - 67
Hardness (ppm)	234	275	128 - 275	121	264	75 - 264
Hardness (gpg)	13.7	16.1	7.5 - 16.1	7.1	15.4	4.4 - 15.4
Magnesium (ppm)	24	26	12 - 26	9	23	5 - 23
pH (field)	8.15	8.29	8.05 - 8.29	8.22	8.34	8.1 - 8.34
Potassium (ppm)	4.7	5.1	3.0 - 5.1	2.6	4.9	1.8 - 4.9
Silica (ppm)	8.1	9.2	6.5 - 9.2	16	18	8.3 - 18
Sodium (ppm)	93	100	79 - 100	74	94	66 - 94

### Footnotes:

- Copper and lead are regulated as Treatment Technique under the Lead and Copper Rule, which requires water samples to be collected at the consumer's tap. If action levels are exceeded in more than 10 percent of consumer 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 are in compliance 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.**
- Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.**
- Single value from LBUD's annual monitoring.**
- Revised Total Coliform Rule established total coliform Treatment Technique triggers and required actions, e.g., a greater than 5 percent total coliform positive samples found in the water distribution system in any given month triggers a Level 1 Assessment.**
- Data from MWD's 2022 treatment plant effluents and distribution system.**

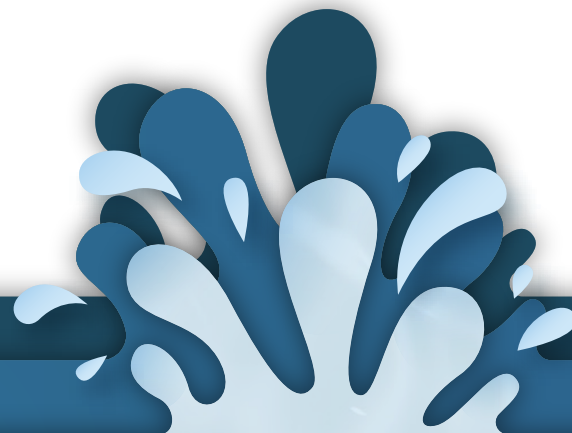




# Water Quality Standards

## Definitions, Acronyms and Abbreviations

The U.S. EPA and State Water Quality Board set limits for substances that can be found in water. These standards are set to protect health and the aesthetic quality of drinking water. The tables in this report show these standards as related to 2022 data.



**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

**HA:** Health advisories

**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

**NA:** Not applicable

**NL (Notification Level):** 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 and MRDLs for contaminants that affect health, along with their monitoring and reporting requirements and water treatment requirements

**PFAS:** Polyfluoroalkyl substances

**PFOA:** Perfluorooctanoic acid

**PFOS:** Perfluorooctane sulfonic acid

**RTCR:** Revised Total Coliform Rule

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

**WTP:** Water Treatment Plant

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## 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

**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

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## 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

### 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 2022, the level of boron found in Long Beach's water was 130 ppb, well below the state's NL of 1,000 ppb.

### 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 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' 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 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. LBUD 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 were 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, it's a good idea to have your water tested by Long Beach Utilities or a private laboratory. For information on lead in drinking water, testing methods and steps you can take to minimize exposure, call the Safe Drinking Water Hotline at (800) 426-4791 or visit at [Epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water](https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water).

### 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 Utilities add fluoride to its water. In 2015, the U.S. Public Health Service revised the recommended fluoride concentration for drinking water to 0.7 mg/L to maintain cavity prevention benefits and reduce the risk of dental fluorosis. In 2022 the average Fluoride in the LBUD distribution system was 0.7 mg/L.

Blending fluoridated water from different sources does not increase total fluoride levels in drinking water. Fluoride 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. For more information about fluoridation, oral health and current issues, visit [Waterboards.ca.gov](https://www.waterboards.ca.gov).

### PFAS

In March 2019, the California Division of Drinking Water issued an order to all water systems to perform 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 them 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, the California Division of Drinking Water issued an order for public water systems to monitor specific sources quarterly, beginning in 2023. LBUD began monitoring two designated wells, Citizens 9 and Commission 25, in February 2023 and no PFAS has been detected. LBUD will continue to monitor these two wells for the rest of 2023.



# Information on **Detected Substances**

## **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 2022's distribution system ranged from 26-54 ppb, with the highest locational running average, or LRAA, of 41 ppb. These values are well below the MCL of 80 ppb. The 2022's distribution system HAA5 concentrations ranged from 2.7 - 18 ppb, and the highest LRAA was 11 ppb. This is also well below the MCL of 60 ppb.

## **Bromate**

Also a disinfection byproduct, bromate 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, 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 kidney effects in laboratory animals. It is suspected to 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 2022, MWD's drinking water bromate levels were reported below the DLR of 5 ppb on a highest running annual average basis. If needed, Long Beach Utilities can decrease the bromate levels in the system by blending MWD water with treated groundwater. In 2022, the HRAA for bromate was below the DLR of 5 ppb in the Long Beach distribution system.

