Long Beach Water
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2021 Annual Water Quality Report

Water testing performed in 2021

Proudly presented by

Long Beach Water Department
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PWS ID#: 1910065

Long Beach Board of Water Commissioners

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2021 consumer confidence report

The Long Beach Water Department is pleased to inform you that your tap water met all United States Environmental Protection Agency and State of California drinking water standards for 2021.

Message from the general manager

This year has presented many challenges, from the ongoing drought to the lingering impacts of the COVID-19 pandemic. We are proud to report that we continue to provide our nearly half a million customers with safe, reliable, affordable and exceptional quality drinking water.

Your tap water undergoes a multi-stage treatment process at our state-of-the-art Groundwater Treatment Plant along with rigorous testing — 64,000 tests performed this year — meeting or exceeding all federal and state water quality standards. Please feel free to call our Water Quality Laboratory at 562.570.2479 with any questions or concerns regarding the safety of our drinking water.

We recognize that water is our most precious resource, and we offer a variety of programs and resources to encourage the Long Beach water-wise lifestyle throughout our community. Through the Lawn-to-Garden program, we transformed more than 175,436 square feet of grass turf into beautiful, drought-resistant gardens in 2021. Our Certified Blue Restaurant program continues to help Long Beach eateries conserve water. And, at more than 60 sites this year, we have helped customers add California native plants and waterwise landscaping in their parkways at no cost.

As we emerge from the pandemic, we are pleased to be able to resume in-person education and outreach throughout the community. Our continued partnership with Long Beach schools allows us to encourage conservation from a young age with engaging curriculum.

At Long Beach Water we don't just encourage conservation, we also do our part by maintaining a reliable, sustainable water supply. We're continuing our local groundwater well

rehabilitation, beginning construction of two new wells this year, with a third set to be completed by the end of 2022.

I'm proud to report we continue our focus on increasing groundwater use, resulting in long-term cost savings and greater efficiency that help us keep water rates low for our customers. Exceptional customer service remains our top priority. Our highly qualified operators and technicians work 24/7 and are able to quickly respond to the urgent needs of our customers.

Long Beach Water is honored to contribute to a brighter future for our community. As we continue forward, you are our partners. We welcome your comments at our Board of Water Commissioners meetings. Visit lbwater.org for the meeting schedule.

Thank you for your time and interest in the 2021 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 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 Water has published the 2021 CCR electronically at **lbwater.org/waterqualityreport**. If you would prefer to receive a hard copy of the CCR, please contact us at 562.570.2479 or visit your neighborhood Long Beach Library branch.

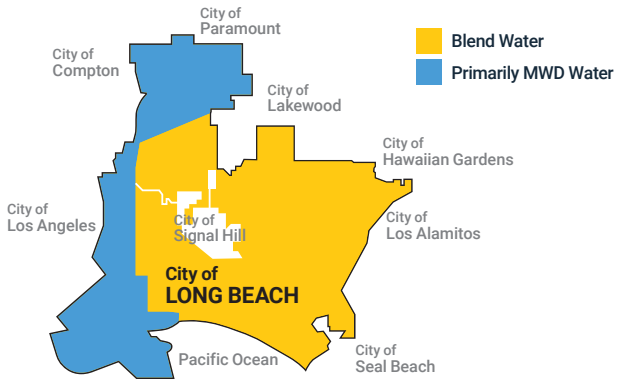
El Reporte de Confianza de los Consumidores, o CCR, es un informe anual de la calidad de agua potable que la Ley de Agua Potable Segura, o SDWA, require que sistemas públicos de agua compartan a cada cliente. El propósito de la CCR, también conocido como el informe de calidad del agua, es para aumentar la conciencia de los consumidores acerca de la calidad de su agua potable, de donde proviene, lo que se necesita para suministrar agua a las empresas y los hogares y la importancia de proteger fuentes de agua potable.

Long Beach Water publicó el CCR del 2021 electrónicamente, en **lbwater.org/waterqualityreport**. Si prefiere recibir una copia impresa del reporte CCR, póngase en contacto con LBWD por teléfono al 562.570.2479 para solicitar una copia o visite a una biblioteca de Long Beach en su vecindad.

Your tap water undergoes a multi-stage treatment process at our state-of-the-art Groundwater Treatment Plant along with rigorous testing — 64,000 tests performed this year — meeting or exceeding all federal and state water quality standards.

"Through the Lawn-to-Garden program, we transformed more than 175,436 square feet of grass turf into beautiful, drought-resistant gardens in 2021."

Long Beach drinking water sources



In 2021, about 65 percent of the potable water served by Long Beach Water was supplied by local groundwater. The remaining 35 percent was supplied through purchased, imported surface water.

Long Beach Water 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 surpasses 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 Water 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 yellow, that may experience a change in the water blend.

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

Long Beach Water 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.

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 2021, Long Beach Water 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 water 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 Water completed a new source water assessment on its active wells in July 2012. New wells that are constructed after this date must also undergo a similar assessment. The assessment concluded that all active wells are considered most vulnerable to the community sewer collection system.

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 Water 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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Radioactive materials

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

Pesticides and herbicides

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

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 storm water runoff, agricultural applications and septic systems.

In order 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. 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.

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, 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. 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 800.426.4791.

We have tested more than

64,000

water samples in 2021

Sampling results

In the past year, we have tested more than 64,000 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 under 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 this table are from the testing performed from Jan. 1 to Dec. 31, 2021. 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.

LBWD Water Quality Data 2021

Regulated Primary Health Standards

PARAMETER (UNIT OF MEASURE)	GOALS	REGULATORY LEVELS			MWD ZONE (114)			BLENDED ZONE (325)			TYPICAL SOURCES OF CONTAMINATION
	PHG (MCLG)	MCL	2nd MCL	NL (AL)	AVE	MAX	RANGE	AVE	MAX	RANGE	
CLARITY											
Turbidity[2] (NTU)	NA	TT	5	NS	ND	0.08	ND - 0.08	ND	0.09	ND - 0.09	Soil runoff
Turbidity[2] (Lowest monthly percent of samples meeting limit) = 100%											
MICROBIOLOGY (% POSITIVE)											
Total Coliform Bacteria[4]	(0)	5%	NS	NS	City-wide: Highest Monthly - ND; Range - ND						Naturally present in the environment
INORGANIC CHEMICALS											
Aluminum (ppb)	600	1000	200	NS	153	258	ND - 258	ND	59	ND - 59	Erosion of natural deposits, added during water treatment
Arsenic (ppb)	0.004	10	NS	NS	ND	2.2	ND - 2.2	ND	ND	ND	Erosion of natural deposits, runoff from orchards and industrial process
Copper[1] (ppb)	300	NS	1000	(1300)	City-wide: 90th percentile = 196, 83 sites sampled; 0 sites over Action Level (AL = 1300)						Corrosion of plumbing, erosion of natural deposits
Fluoride (ppm)	1	2	NS	NS	0.7	0.8	0.6 - 0.8	0.7	0.8	0.7 - 0.8	Erosion of natural deposits, supplemental additive
Lead[1] (ppb)*	0.2	NS	NS	(15)	City-wide: 90th percentile = <DLR, 83 sites sampled; 0 sites over Action Level (AL = 15)						Internal corrosion of household plumbing, erosion of natural deposits

*In 2021 there was no request for lead testing from schools in the Long Beach Unified School District.

Radiologicals

PARAMETER (UNIT OF MEASURE)	GOALS	REGULATORY LEVELS			MWD ZONE (114)	BLENDED ZONE (325)	TYPICAL SOURCES OF CONTAMINATION
	PHG (MCLG)	MCL	2nd MCL	NL (AL)			
Gross Alpha (GA)[3] Particle Activity (pCi/L)	(0)	15	NS	NS	MWD plant effluents Gross Alpha detected in the range of ND - 4 pCi/L.[5] Gross Alpha detected in the MWD Zone of LBWD distribution at 3.3 pCi/L		Erosion of natural deposits
Gross Beta (GB)[3] Particle Activity (pCi/L)	(0)	50	NS	NS	MWD plant effluents Gross Beta detected in the range of 4 - 6 pCi/L.[5] Gross Beta was detected in the MWD Zone of LBWD distribution at 5.3 pCi/L		Decay of natural and man made deposits
Uranium (pCi/L)[3]	0.43	20	NS	NS	MWD plant effluents Uranium detected in the range of 1 - 3 pCi/L.[5] Uranium detected in the MWD Zone of LBWD distribution at 2.9 pCi/L. Uranium detected in the Blended Zone of LBWD distribution 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	2nd MCL	NL (AL)	DS*	MWD PLANT EFFLUENT RANGE	DS*	RANGE	
Boron[3] (ppb)	NS	NS	NS	1000	130	NA	120	NA	Naturally present in the environment
Chlorate[3] (ppb)	NS	NS	NS	800	66	MWD system-wide[5]: 39 - 88	14	NA	Byproduct of drinking water chlorination; industrial process
Nitrosodimethylamine (NDMA)[3] (ppt)	3	NS	NS	10	5.4	MWD system-wide[5]: ND - 4.2	4.3	NA	Formed through natural, industrial and disinfection process

*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	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

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

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

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

LBWD Water Quality Data 2021

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	2nd MCL	NL (AL)			
Bromate (ppb)	0.1	10	NS	NS	MWD Jensen plant effluent running annual average (RAA) and LBWD distribution system RAA are less than DLR of 5 ppb in 2021		Byproduct of drinking water ozonation
Haloacetic Acids (HAA5) (ppb)	NS	60	NS	NS	City-wide: 12 ppb highest LRAA, range: 4.8 - 13 ppb		Byproduct of drinking water chlorination
Total-Trihalomethanes (TTHM) (ppb)	NS	80	NS	NS	City-wide: 46 ppb highest LRAA, range: 26 - 51 ppb		Byproduct of drinking water chlorination
Chloramines (ppm)	MRDL=4.0 (as Cl_2)	MRDLG= 4.0 (as Cl_2)	NS	NS	City-wide: 2.14 ppm highest running annual average, HRAA; range 1.0 - 2.75 ppm		Drinking water disinfectant added during treatment

Secondary Drinking Water Standards - Aesthetic Standards, 2021

PARAMETER (UNIT OF MEASURE)	2ND MCL	MWD ZONE (114)			BLENDED ZONE (325)			TYPICAL SOURCES OF CONTAMINATION
		AVE.	MAX	RANGE	AVE.	MAX	RANGE	
Chloride (ppm)	500	89	98	79 - 98	46	51	41 - 51	Runoff/leaching from natural deposits; seawater influence
Color (CU)	15	ND	2	ND – 2	2	3	ND – 3	Naturally-occurring organic materials
Specific Conductance (µS/cm)	1600	940	1020	580 - 1020	520	600	430 - 600	Substances that form ions when dissolved in water; seawater influence
Odor[3] (TON)	3	1	1	NA	1	1	NA	Naturally-occurring organic materials
Sulfate (ppm)	500	210	250	67 - 250	49	71	22 - 71	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	1000	620	700	350 - 700	320	400	280 - 400	Runoff/leaching from natural deposits

Additional Constituents of Interest, 2021

PARAMETER (UNIT OF MEASURE)	MWD ZONE (114)			BLENDED ZONE (325)		
	AVE.	MAX	RANGE	AVE.	MAX	RANGE
Alkalinity (ppm)	123	135	84 - 135	135	139	129 - 139
Calcium (ppm)	62	68	24 - 68	28	32	21 - 32
Hardness (ppm)	137	272	56 - 272	92	110	47 - 110
Hardness (gpg)	8	15.9	3.5 - 15.9	5.4	6.4	2.8 - 6.4
Magnesium (ppm)	24	25	13 - 25	6	8	4 - 8
pH (field)	8.21	8.65	7.96 - 8.65	8.20	8.31	8.12 - 8.31
Potassium (ppm)	4.7	4.9	3.3 - 4.9	2.1	2.3	1.7 - 2.3
Silica (ppm)	7.5	8.8	5.9 - 8.8	17	19	16 - 19
Sodium (ppm)	90	94	70 - 94	69	72	66 - 72

Footnotes

[1] 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 2019 at 83 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 Water will report this same result each CCR year (2020, 2021, and 2022) until the next set of samples are taken.

[2] 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.

[3] Single value from LBWD's annual monitoring

[4] State Total Coliform Rule and Federal Revised Total Coliform Rule: California requires no more than 5 percent total coliform-positive samples found in distribution system in any given month. The new federal rule requires any positive coliform samples above 5 percent to trigger Level 1 Assessment.

[5] Data from MWD's 2021 system wide monitoring

Water quality standards: Definitions, acronyms and abbreviations

The U.S. EPA and State Water Quality Board set limits for substances the 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 2021 data.

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 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

Water quality standards: Definitions, acronyms and abbreviations

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 water, or nanograms per liter

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

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)

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 800.426.4791.

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 2021, 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 at your neighbor's as a result of the materials used in your home's plumbing. Long Beach Water 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 2019 Lead and Copper Monitoring Rule compliance sampling at 83 customer taps, Long Beach Water 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 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 Water or 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 800.426.4791 or at Epa.gov/safewater/lead.

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 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.

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.

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 Water has 14 groundwater wells that were deemed vulnerable to these substances and we 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 Water has not detected these substances in our groundwater since monitoring began.

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.

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 Water 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 distribution system ranged from 26–51 ppb, with the highest locational running average, or LRAA, of 46 ppb. These values are well below the MCL of 80 ppb. The distribution system HAA5 concentrations ranged from 4.8-13 ppb, and the highest LRAA was 12 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 Water 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 2021, MWD's 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 Water can usually decrease the bromate levels in most of our system by blending with our treated groundwater. In 2021, the HRAA for bromate was below the DLR of 5 ppb in our distribution system.