

Annual
**WATER
QUALITY
REPORT**
Reporting Year 2012



Presented By
Long Beach Water Department

PWS ID#: 1910065

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

**Chi tiết này thật quan trọng.
Xin nhờ người dịch cho quý vị.**

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

**របាយការណ៍នេះមានព័ត៌មានសំខាន់
អំពីទឹកបរិភោគ ។ សូមបកប្រែ
ឬពិគ្រោះជាមួយអ្នកដែលមើលយល់
របាយការណ៍នេះ ។**

**此份有關你的食水報告，
內有重要資料和訊息，請找
他人為你翻譯及解釋清楚。**

There When You Need Us

For over 100 years, the Long Beach Water Department (LBWD) has committed itself to providing the residents of Long Beach with high-quality, affordable drinking water. Each year, LBWD water quality experts perform thousands of tests on over 100 water contaminants, to ensure that your drinking water meets or exceeds all State and Federal drinking water quality regulations.

I am pleased to share with you that in the last year the Long Beach drinking water supply has once again satisfied all State and Federal drinking water standards. We appreciate you investing the time to read this informative report and to learn more about what our organization is doing to safeguard your drinking water. If you have additional questions about this report or any other water quality issues, please feel free to call our Water Quality Laboratory.

Sincerely,

Kevin L. Wattier, General Manager

The Long Beach Water Department's Commitment

Since its formation in 1911, the Long Beach Water Department (LBWD) has been responsible for delivering to your homes and businesses a reliable, affordable, and high-quality supply of drinking water. Our commitment to protect and provide a safe supply of water has not wavered for the past 100 years. Currently, LBWD serves a total population of 464,662 through over 900 miles of pipelines. Drinking water is tested on a routine basis for microbiological as well as chemical quality.

During 2012, a staff of skilled water scientists, engineers, and technicians performed over 64,000 tests to analyze for more than 100 drinking water contaminants. These tests are done to ensure that the water quality meets or exceeds all Federal and State standards. We are pleased to inform you that no constituent was detected over the enforceable limit that the California Department of Public Health (CDPH) has set.

The LBWD remains vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of its water users. Thank you for allowing us to continue providing you and your family with high-quality drinking water.

We encourage you to share your thoughts with us on the information contained in this report. Should you ever have any questions or concerns, we are always available to assist you.



Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.

QUESTIONS?

CCR Delivery Updates

The Consumer Confidence Report, or CCR, is an annual water quality report that the Safe Drinking Water Act (SDWA) requires LBWD to provide each customer. The purpose of the CCR is to raise customers' awareness of 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.

EPA and the California Department of Public Health (CDPH) have approved electronic delivery of the CCR. In 2014, LBWD will provide the option of electronic delivery of the CCR. We would appreciate your feedback as to the best means of providing this annual report to you. Please see an insert in your August water bills for a survey to be sent back to LBWD. Your response will determine how future CCRs will be delivered to you.

Actualizaciones de Envío del CCR

El Informe de Confianza del Consumidor, o CCR, es un informe anual de la calidad del agua que la Ley de Agua Potable Segura (SDWA) requiere LBWD proveer a cada cliente. El propósito del CCR es darle conocer a los clientes sobre la calidad de su agua potable, donde el agua potable proviene, lo que se necesita para proporcionar agua a negocios y viviendas y la importancia de proteger el origen de agua potable.

EPA y CDPH han aprobado la entrega electrónica del CCR. En 2014, LBWD ofrecerá la opción de entrega electrónica del CCR. Agradecemos sus comentarios sobre la mejor manera de entregar este informe anual a usted. Consulte el encarte en sus facturas de agua mensuales de agosto sobre una encuesta que usted puede enviar de vuelta a LBWD. Su respuesta determinará cómo los CCRs serán enviados en el futuro.

If you have any questions about your water quality or this report, please call the LBWD at (562) 570-2482, Monday through Friday, between the hours of 8 a.m. and 4:30 p.m. You may also request this information in an alternate format by contacting Melissa Keyes at (562) 570-2309, or by writing to:

Long Beach Water Department
1800 E. Wardlow Road, Long Beach, CA 90807
Attn: Melissa Keyes

Public Meetings

The Long Beach Water Department Board of Water Commissioners meet the first and third Thursdays of each month at 9:00 a.m. at our Administration Building. The public is encouraged to participate in these meetings. For further information, please call (562) 570-2300.

Board of Water Commissioners:

John D. S. Allen

Paul C. Blanco

Suzanne Dallman

Harry Saltzgaver

What Are PPCPs?

When cleaning out your medicine cabinet, what do you do with your expired pills? Many people flush them down the toilet or toss them into the trash. Although this seems convenient, these actions could threaten our water supply.

Recent studies are generating a growing concern over pharmaceuticals and personal care products (PPCPs) entering water supplies. PPCPs include human and veterinary drugs (prescription or over-the-counter) and consumer products, such as cosmetics, fragrances, lotions, sunscreens, and household cleaning products. In a recent five-year period, the number of U.S. prescriptions increased 12 percent to a record 3.7 billion, while nonprescription drug purchases held steady around 3.3 billion. Many of these drugs and personal care products do not biodegrade and may persist in the environment for years.

The best and most cost-effective way to ensure safe water at the tap is to keep our source waters clean. Never flush unused medications down the toilet or sink. Instead, check to see if the pharmacy where you made your purchase accepts medications for disposal, or contact your local health department for information on proper disposal methods and drop-off locations. You can also go on the Web at www.Earth911.com/tour to find more information about disposal locations in your area.

Interesting Facts

Disinfectants and Disinfection By-products (Trihalomethanes, Haloacetic Acids, and Bromate)

Trihalomethanes and Haloacetic Acids

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 Department utilizes chloramine disinfection as a secondary disinfectant. 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, without compromising taste. However, chloramine can react with naturally occurring materials in the water to form disinfection by-products (DBPs), which may pose health risks. Total trihalomethanes (TTHMs) and haloacetic acids (HAA5), the most common DBPs, are suspected to be carcinogenic in humans.

Some people consuming water containing TTHMs in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer. To lower the risk from ingesting water containing DBPs, the Stage 1 Disinfectants/Disinfection Byproducts (D/DBP) Rule regulated by the U.S. EPA, in 2002, lowered the acceptable TTHM level from 100 ppb to 80 ppb and added to the list HAAs at an acceptable MCL level of 60 ppb. To better protect health, the U.S. EPA in 2006 regulated utilities to meet the Stage 2 D/DBP Rule by the year 2012. This new Rule builds on the existing Stage 1 D/DBP regulations by requiring water systems to meet disinfection by-product maximum contaminant levels (MCLs) at each disinfection monitoring site in the distribution system.

Long Beach began monitoring for Stage 2 compliance in 2009, and both TTHM and HAA5 values from the 2012 monitoring were in compliance with the Stage 2 Rule requirements. The values for TTHMs in the distribution system ranged from 34 - 69 ppb, and the highest locational running average (LRAA) was 61 ppb, or well below the MCL of 80 ppb. The distribution system HAA5 concentrations ranged from 7 - 19 ppb, and the highest LRAA was 17 ppb, also well below the MCL of 60 ppb.



Bromate

Systems using ozone to treat drinking water are required to monitor for bromate at the treatment plant's effluent. Bromate, also a disinfection by-product, is formed when ozone reacts with naturally occurring bromide found in the source water. LBWD does not ozonate our waters; however, the purchased treated MWD surface water may have detectable levels of bromate.

Exposure to high concentrations of bromate over a long period of time caused cancer in rats and kidney effects in laboratory animals, and it is suspected of potential reproductive effects in humans. The U.S. EPA developed an MCL of 10 ppb that it considers protective of noncancer health effects from long-term exposure in humans. In 2012, MWD's drinking water bromate levels were reported to be as high as 5.2 ppb leaving their treatment plant (on a running annual average basis). LBWD can usually decrease the bromate levels in most of our system by blending with our treated

groundwater. In 2012, LBWD detected bromate at a maximum level of 2.8 ppb.

Boron

Boron is naturally present in the environment. Exposure to high concentrations of boron in excess of the notification levels by women who are pregnant may increase their risk of having babies with developmental effects, based on studies in laboratory animals. The level found in LBWD's water for boron was 130 ppb, well below the State's notification level of 1,000 ppb.

Fluoridation

Fluoride is one of the most plentiful elements on earth. It occurs naturally in water supplies throughout California and elsewhere. When fluoride is present in drinking water at optimal levels, it has been shown to promote oral health by preventing tooth decay. Water systems are considered naturally fluoridated when the natural level of fluoride is greater than 0.7 ppm. Water fluoridation refers to the practice of adjusting the level of fluoride to 0.7 to 1.2 ppm. Blending fluoridated water from different sources does not increase total fluoride levels in drinking water. Currently, about 67 percent of the U.S. population on public water supplies has access to fluoridated water.

The CDPH and the U.S. Centers for Disease Control and Prevention strongly agree that fluoridated water helps promote dental hygiene and reduce the risk of caries (cavities) in children and adults. For these reasons and because it is a cost-effective public health measure, the Long Beach City Council in 1971 mandated that LBWD add fluoride at a dose to achieve a level of 1.0 mg/L in the drinking water, the level recommended by the American Dental Association. Please refer to www.cdph.ca.gov/certlic/drinkingwater/Pages/Fluoridation.aspx.

Source of Drinking Water

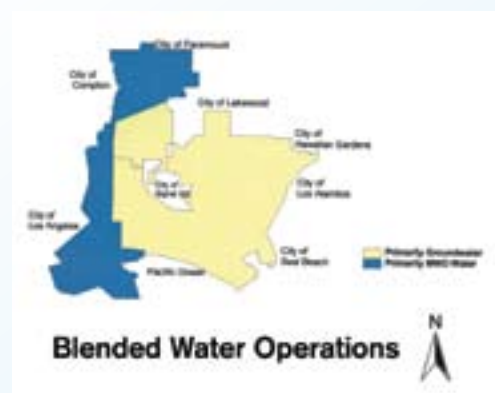
Approximately 53 percent of the potable water serving the City is supplied by groundwater, and the remaining 47 percent is supplied through purchased imported surface water. The sources of drinking water (for both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As the water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

LBWD purchases treated surface water from the Metropolitan Water District of Southern California (MWD), and treats groundwater pumped from 30 wells around the Long Beach area at our Groundwater Treatment Plant. Both the purchased surface water and the treated groundwater better the Federal and State water quality standards. The Federal regulations are set by the U.S. Environmental Protection Agency (U.S. EPA) and the State standards are set by the California Department of Public Health (CDPH).

Two major aqueducts supply the surface waters feeding MWD's five regional treatment plants. Colorado River water, which has a 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 and terminates in Southern California at Lake Mathews. State Water Project water, which contains a lower mineral content but higher 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 through 441 miles before terminating in Southern California.

The groundwater treated at the LBWD Groundwater Treatment Plant originates from the San Gabriel watershed. The watershed is fed by the rain and snow melt, 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.

The Long Beach service area may be divided up into two main hydraulic regions: the MWD zone, which primarily receives purchased treated surface water, and the blended zone, which may receive a combination of treated groundwater and purchased treated surface water. LBWD sometimes make changes in blends of water in our system, and the residents may notice the associated changes to the water quality. Regardless of which area in Long Beach you work or live in, LBWD's goal is to provide water meeting or bettering all water quality regulations to our consumers at the most reasonable cost. The following graphs show the areas that may be affected by the change in the water blend.



Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Water Treatment Process

The treatment process consists of a series of steps. First, raw water is pumped from our source wells to the LBWD Treatment Plant. Special water treatment chemicals, known as coagulants, are added to the water in order to cause the particles in the water to adhere to one another (called floc), making them heavy enough to settle into a basin from which sediment is removed. Chlorine is then added for disinfection. At this point, the water is filtered through layers of fine coal and silicate sand. As smaller, suspended particles are removed, turbidity disappears and clear water emerges.

Chlorine and ammonia are added again as a precaution against any bacteria that may still be present. (We carefully monitor the amount of chloramine, adding the lowest quantity necessary to protect the safety of your water without compromising taste.) Finally, fluoride (used to prevent tooth decay) is added and the pH is adjusted (to protect distribution system pipes) before the water is pumped to drinking water reservoirs and into your neighborhood, home, or business.

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. MWD completed its source water assessment of its Colorado River and State Water Project supplies in December 2002. It was found that Colorado River supplies are most vulnerable to recreation activities, urban/storm water runoff, increasing urbanization in the watershed, and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation activities, and wastewater. A copy of the assessment can be obtained by contacting MWD by phone at (213) 217-6850.

The LBWD performed a source water assessment for its active wells in July 2012. New wells that are constructed after this date must also undergo a similar assessment. To summarize, 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, confirmed leaking underground fuel tanks, airport activities, metal plating/finishing/fabrication, plastic/synthetics producers, and historic landfills. However, although the wells are considered vulnerable to the aforementioned activities, the LBWD performs water quality monitoring for each active well annually and have not detected any constituents that suggests contamination. Please contact the LBWD by phone at (562) 570-2300 for more details if you would like to review this document.

Substances That Could Be in Water

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the California Department of Public Health (CDPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

Contaminants that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

Inorganic Contaminants, such as salts and metals, that can be naturally occurring or can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production and that can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

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

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

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The State requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	Blended Zone		MWD Zone		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Aluminum (ppm)	2012	1	0.6	0.092	0.069–0.137	0.099	<0.05–0.175	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	2012	10	0.004	2.0	ND–3.0	ND	ND–2.8	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Bromate ¹ (ppb)	2012	10	0.1	MWD Jensen Plant effluent: 5.2 ppb HRAA, Range ND–6.9 ppb Citywide: HRAA = <2 ppb, Range ND–2.8 ppb				No	By-product of drinking water disinfection
Chloramines (ppm)	2012	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	Citywide: 2.1 ppm HRAA, Range 0.48–2.88 ppm				No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2012	2.0	1	0.86	0.81–0.92	0.83	0.77–0.88	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs]–Stage 2 (ppb)	2012	60	NA	Citywide: 17 ppb Highest LRAA, Range 7–19 ppb				No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	2012	45	45	0.08	ND–0.22	0.32	0.12–0.58	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2012	80	NA	Citywide: 61 ppb Highest LRAA, Range 34–69 ppb				No	By-product of drinking water disinfection
Total Coliform Bacteria [Total Coliform Rule] (% positive samples)	2012	More than 5.0% of monthly samples are positive	(0)	Citywide: 0.44% Highest Monthly, Range 0–0.44%				No	Naturally present in the environment
Turbidity ² (NTU)	2012	TT	NA	0.11	0.08–0.11	0.09	0.07–0.09	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2012	TT	NA	100	NA	100	NA	No	Soil runoff
Uranium ³ (pCi/L)	2012	20	0.43	NA	NA	1.1	NA	No	Erosion of natural deposits

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

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2010	1.3	0.3	0.124	0/159	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2010	15	0.2	<5	0/159	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	Blended Zone		MWD Zone		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Chloride (ppm)	2012	500	NS	46	35–84	76	42–95	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2012	15	NS	1	ND–4	ND	ND–2	No	Naturally occurring organic materials
Odor–Threshold ³ (TON)	2012	3	NS	1	NA	1	NA	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2012	1,600	NS	486	401–737	686	339–825	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2012	500	NS	46	20–120	123	41–170	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2012	1,000	NS	289	232–424	416	204–512	No	Runoff/leaching from natural deposits

OTHER REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Blended Zone		MWD Zone	
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH
Alkalinity (ppm)	2012	120	102–133	93	70–103
Boron ³ (ppb)	2012	130	NA	130	NA
Calcium (ppm)	2012	26	19–43	44	22–55
Chlorate ³ (ppb)	2012	NA	NA	39 ⁴	NA
Hardness (grains/gal or gpg)	2012	5.4	3.5–11	11	5.8–13
Hardness (ppm)	2012	93	60–184	183	99–224
Magnesium (ppm)	2012	6.8	2.4–18	18	11–21
Nitrosodimethylamine [NDMA] (ppt)	2012	<2	<2–3.5	4.0	2.0–8.6
pH (Units)	2012	8.07	7.79–8.22	8.08	7.80–8.63
Potassium (ppm)	2012	1.9	1.4–3.6	3.4	2.0–4.0
Silica (ppm)	2012	16	8.1–20	8.5	5.7–12
Sodium (ppm)	2012	69	61–74	71	41–82

¹ MWD supplied purchased water to LBWD that had detectable levels of bromate in both the MWD and Blended zones in 2012.

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 annual monitoring.

Definitions

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

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

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

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

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

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

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

NA: Not applicable

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

NS: No standard

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

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

PHG (Public Health Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

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

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

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

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

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