Los Angeles Department of Water & Power

2016 Drinking Water Quality Report

For the period of January 1 through December 31, 2016

Photographer: Art Mochizuki

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About the cover: LADWP crews lower a 54-inch valve into the trench as part of the Foothill Trunk Line project in the Sunland/Tujunga area of Los Angeles.

Water Quality in Los Angeles

A Message from Albert Gastelum

Director of Water Quality

In Los Angeles, having easy access to safe, clean tap water is something that can be taken for granted easily. More often than not, the water flows from the tap without incident and you need not worry about it at all. But recent headlines about failed water systems in Flint, MI and Corpus Christi, TX have shed light on how valuable safe drinking water truly is, no matter where you might live, and just what it entails to produce high quality water. Understandably, these headlines led LADWP customers to ask questions about the quality and safety of their tap water. We at LADWP are pleased to engage in these conversations and share the facts about LA's drinking water.

LADWP's mission and promise is to continue providing safe and reliable drinking water to all our customers. All of our efforts in the field, at our treatment facilities and at our laboratories, guarantee that the water served to you meets all drinking water standards. We take great pride in the fact that LA's water is the safest, most reliable and affordable for our customers at half a penny per gallon. In 2016, we supplied nearly 160 billion gallons of safe, clean drinking water to to more than four million Angelenos. Over the 12-month period, our water quality team collected nearly 40,000 water samples throughout the city and conducted more than 140,000 water quality tests for compliance as well as for research and operational improvements. We tested for more than 200 regulated and unregulated contaminants and constituents of interest such as sodium and hardness.

As we move forward with our daily efforts, we seek innovative and proven technologies to improve our operational effectiveness and delivery of safe water. In 2016, we employed new technology that changed the conventional, and wasteful, flushing approach to cleaning distribution pipes by utilizing technology to achieve the same water quality improvement result without the water waste.

Ensuring that the water that comes into your home or business surpasses all state and US drinking water regulations is our highest priority at LADWP. We value your trust as we strive to increase the reliability of our water system and to continue providing the highest quality water for you and your family.

For more information: www.ladwp.com/waterquality
(800) DIAL-DWP

Investing in Reliability, Water Quality and LA's Water Future

A Message from Richard Harasick

LADWP Senior Assistant General Manager, Water System

With the recent rate proposal approved and implemented in early 2016, LADWP is firing on all cylinders continuing to build LA's water future while providing the highest quality water to all of our customers. Every day, our team of dedicated employees ensures that we meet our reliability and service commitments to our customers while we work to reduce our reliance on imported water, and repair our aging infrastructure.

Over a year ago, we broke ground on a project in the Northeast San Fernando Valley to replace a 90-year-old pipe. The Foothill Trunk Line is one of the city's longest, and LADWP is upsizing a three-mile section with a 54-inch diameter pipe and earthquake resistant ductile iron pipe where the project crosses known earthquake faults. This is just one of many pipe replacement projects underway throughout the city. In fiscal year 2015-16, our crews replaced more than 32 miles, surpassing our fiscal year goal. This year, we expect to replace another 35 miles. Based on past experience, we know that the pipe replacement program has a direct correlation to decreasing the number of leaks in our system over the last decade. In fact, LADWP's leak rate is 17 for every 100 miles, better than the national industry average of 25 per 100 miles.

LADWP is also continuing to pursue conservation, recycled water, groundwater replenishment and stormwater capture programs in order to improve our overall water supply reliability. We concluded 2016 by meeting the Mayor's target for water use at 104 gallons per capita per day. We also joined forces with the Los Angeles County Flood Control District in the summer to begin the work of enhancing the 150-acre Tujunga Spreading Grounds in Sun Valley. This important project will help increase our stormwater capture capacity to enhance local water supplies and recharge the local aquifer right here in our backyard.

Rest assured we are investing your rates in improvements that will last into the next century. All of the research we have conducted through the years has meant the continued pursuit and implementation of innovative and cutting-edge technology at the forefront of water quality treatment: shade balls to protect water quality at our open air reservoir; a state-of-the-art ultraviolet disinfection facility that treats water to meet federal drinking water standards; and groundwater basins replenished with recycled water, complete with a high-tech online monitoring system.

Every step we have taken in the past century has helped transform us into the 21st century water system that we are today. We are proud of all the work we have done and continue to do to strengthen our infrastructure to secure a sustainable water future.

Water Quality in the News

Water quality is always a topic of interest. Occasionally, some aspect of water quality or water safety will make the news. The articles below include topics covered in 2016. For more information, visit www.ladwp.com/waterquality.

Health Advisory Established by US EPA for Two Fluorinated Compounds

In May 2016, the US Environmental Protection Agency (US EPA) established a Health Advisory for two fluorinated organic chemicals that may be found in drinking water: perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS).

The advisory level of drinking water for the combined presence of PFOA and PFOS is 70 parts per trillion. A part per trillion is analogous to one ounce in 7.5 billion gallons of water. This health advisory level offers a margin of protection to the public from potential adverse health effects resulting from exposure to PFOA and PFOS in drinking water over a lifetime of consumption.

LADWP conducted special monitoring for all of its source water for six fluorinated chemicals, including PFOA and PFOS in 2013 and 2014 as part of the US EPA's third unregulated contaminant rule (UCMR3). No fluorinated chemicals were detected. Our water sources are not subject to contamination by fluorinated chemicals; testing confirms this observation.

US EPA Health Advisories are not regulations, but are intended to provide technical guidance to states, public water agencies and public health officials on health effects, analytical methodologies, and treatment technologies associated with drinking water contaminants that are not regulated.

If you are concerned about the potential of fluorinated chemicals in your water, you may want to consider a point-of-use (POU) water treatment device. A study by the Minnesota Department of Health rates 11 POU devices as effective in removing fluorinated chemicals from drinking water.

Harmful Algal Blooms and Algal Toxins

In May 2015, the US EPA issued a Health Advisory for two algal toxins: microcystin and cylindrospermopsin. In June 2016, the US Centers for Disease Control set up the One Health Harmful Algal Bloom System to collect data on the occurrence of harmful algal blooms.

Algae are simple plants that can range in size from microscopic to giant kelp. The group of plants known as algae include a bacterium called cyanobacteria. Cyanobacteria are commonly referred to as blue-green algae. Needing only sunlight, carbon dioxide, and just a few nutrients to grow, microscopic algae and cyanobacteria can grow very quickly forming vast masses called algal blooms. When algal blooms occur, they can grow extremely fast. Algal blooms may appear as green tinted water or floating mats.

Most algae are harmless and important to marine and freshwater ecosystems; however cyanobacteria can produce toxins, which can adversely affect humans and animals. Exposure to or ingestion of water containing cyanobacteria or "cyanotoxins" can result in allergic reactions, headache, nausea, cramps, fever and vomiting. In extreme cases, health effects can result in respiratory arrest, seizures, or kidney and liver failure. For many years, LADWP has monitored routinely for microcystin along the Los Angeles Aqueduct system and have only detected microcystin once.

Lead and Drinking Water in LA

The high level of lead in the drinking water of Flint, MI has raised public awareness, and some concern, about lead and other drinking water contaminants. LADWP is in accordance with state and federal drinking water standards for all contaminants, including lead.

Lead is commonly found throughout our environment – in the air, in the soil, and in homes with old lead-based paints. Fortunately, lead is not found in any of the city's water sources. LADWP has participated in the federal Lead and Copper Rule (LCR) sampling program since 1991 and has taken steps to eliminate lead in our distribution system. Los Angeles has and continues to be in compliance with the lead and copper regulation, based on residential sampling. Even so, LADWP has an approved corrosion control plan to further minimize lead exposure at the tap.

LADWP most recently conducted LCR residential sampling in 2015. To find the LCR results, see Table I (cont'd) on page 14.

The LCR sampling program targets single family residences which were built from 1982-1987 that have copper pipes plumbed with lead solder. Customers with qualifying homes that participate in the sampling program will get their tap water tested for lead and copper at no cost. Customers who think their home may qualify can participate in LADWP's next round of LCR sampling. Contact Mr. Tom Dailor at (213) 367-0921.

In Los Angeles, the main source of lead in drinking water is household plumbing, primarily in homes built before 1986 where lead solder was used to join copper pipes. In 1986, federal law banned the use of lead-based solder in drinking water systems, including household plumbing. So homes built after that year are not expected to contain lead solder in the plumbing. The amount of time water remains in home plumbing will determine how much lead could potentially leach into the tap water. The longer water remains in the pipes, the more likely lead can be detected.

If you are concerned about lead in your water, you may wish to have your water tested. Please see "Water Quality at Home" on page 9 of this report for more information on lead testing and filter systems. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is also available from the Safe Drinking Water Hotline or at www.epa.gov/lead.

Shade Balls for Water Quality and Water Conservation

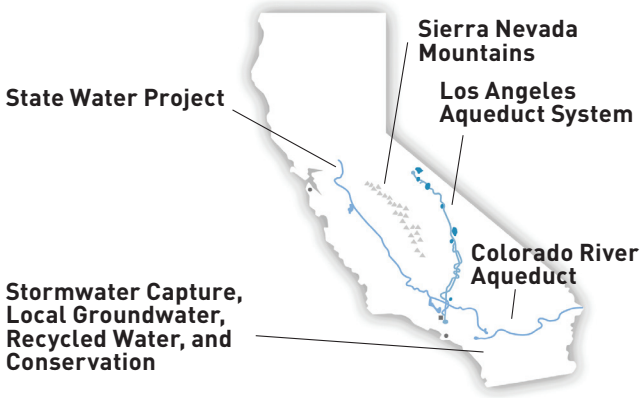
LADWP has increased the use of shade balls in our open air reservoirs over the past few years. The safe and beneficial use of shade balls is significant in improving drinking water quality and conserving water. Water quality is enhanced by reducing the amount of chlorine used to control algae and has the added benefit of reducing the formation of disinfection byproducts. Water conservation is achieved with shade balls by reducing the amount of evaporation in our open reservoirs. The money saved in treatment costs and prevented water loss makes the safe and effective use of shade balls a win-win for our customers. For more information on shade balls, see www.ladwp.com/waterquality>Fact Sheets & Brochures>Shade Ball Facts.

Where Does LA Get the Water It Needs?

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

- 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 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants that can be naturally-occurring or be the result of oil and gas production and mining activities.

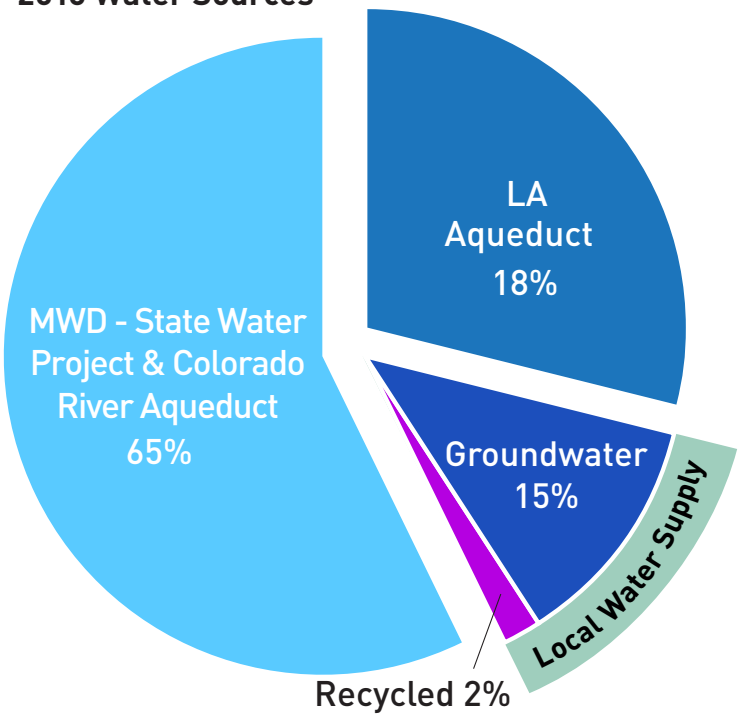
LA's Water Sources



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

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

2016 Water Sources



Important Notice

Chloramine Disinfectant
Chloramine requires different treatment for certain water uses. If you maintain a pond or aquarium, you must provide adequate treatment to remove both the chlorine and ammonia as both are toxic to fish. For more information, please visit www.ladwp.com/waterquality or call (800) DIAL-DWP.

Regulatory Compliance
How do we measure up?

Meeting the highest federal and state standards for the city's drinking water guides our water operations. We are investing in major infrastructure projects to meet drinking water regulations, such as the Long Term 2 Enhanced Surface Water Treatment Rule (LT2). Our major efforts to comply with the regulation include addressing the five remaining uncovered treated water reservoirs, constructing an ultraviolet (UV) treatment facility to meet the LT2 requirements for Los Angeles Reservoir, and continuing to find new ways to reduce disinfection byproducts without compromising public safety.

Notice of Violations of Drinking Water Regulations

LADWP works around the clock to ensure that the drinking water we deliver to our customers is of the highest quality and meets all safety regulations. Water quality is our highest priority at each of the City's water treatment facilities and treatment protocols are followed hundreds of times each day, year-round. In 2016 however, we experienced a momentary lapse in treatment at the 99th Street Wells Water Treatment Facility, and failed to notice a malfunctioning turbidity meter at the Los Angeles Aqueduct Filtration Plant (LAAFP). The two events are summarized below. We take these lapses seriously and have implemented additional steps to ensure continuous treatment. The State enforcement actions can be found at http://www.swrcb.ca.gov/drinking_water/programs/DWPEnforcementActions.shtml, under PWS number 1910067.

Groundwater Rule Treatment Violation

In January 2016, a six-hour lapse in treatment at the 99th Street Wells Water Treatment Facility resulted in a violation of the Groundwater Rule. The 99th Street facility treats water served to customers in the Green Meadows and Watts neighborhoods. An automated alarm sounded to alert the water treatment operator, but it was missed, resulting in delayed response. When the problem was discovered at approximately 1:00 a.m., LADWP staff responded to the site and fixed the treatment equipment. Public notification was issued to all customers served by the facility. More safeguards are in place to prevent this from happening again. For complete details, visit www.ladwp.com/waterquality/Tier2TreatmentViolation or call (213) 367-0921.

Surface Water Treatment Rule Monitoring Violation

On June 16, 2016 the State Water Resources Control Board, Division of Drinking Water issued a citation to LADWP for failing to adequately monitor its drinking water supply for turbidity.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether your drinking water meets health standards. During a 12-hour period on March 4, 2016, we did not monitor for turbidity at one of the 24 individual turbidity meters at the LAAFP, and therefore, could not be sure of the quality of your drinking water during that time. The monitoring failure was the result of an equipment malfunction and operator error.

The Surface Water Treatment Rule and Safe Drinking Water Act require that we monitor continuously for turbidity at each of the 24 filters at the LAAFP. Automated turbidimeters with alarm settings are used for continuous monitoring. In the event of a meter malfunction or maintenance lapse, turbidity samples must be collected and analyzed manually every four hours.

During the March 4 incident, a meter malfunction did not trigger an alarm because the alert level had been set too low. The malfunction was not discovered for 12 hours or properly reported by water treatment operators. In addition, only one sample was collected and analyzed during the period.

The meter was repaired on March 4 and operational changes have been implemented to prevent a re-occurrence.

Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

We do not believe that the turbidity monitoring error compromised the safety of the water supply because:

- Source water quality and quantity were stable during the period.
- Treatment chemical residuals were normal.
- The other 23 filters were operating properly.
- LAAFP has a multiple barrier treatment scheme (filtration, UV disinfection, chlorine, and ozone) which provides added protection against potential pathogens.

The March 4, 2016 incident did not pose a health risk to our customers, and there is nothing you need to do at this time. Since this incident, LADWP has continued to monitor the turbidity of the water at LAAFP, and has continuously met the requirements of the Surface Water Treatment Rule and Safe Drinking Water Act. LADWP is notifying

all customers in accordance with state drinking water notification regulations. Complete details are available on www.ladwp.com/waterquality/Tier3MonitoringViolation. Questions regarding the citation or our response should be directed to Ms. Melinda Rho, LADWP Manager of Regulatory Planning and Compliance at melinda.rho@ladwp.com.

Please share this information with all the other people who drink this water, especially those who may not have received this public notice directly (for example, people in apartments, nursing homes, schools, and businesses).

Assessment Programs for Surface and Groundwater Sources

Surface Supply: In 2015, we completed a new assessment of the Owens Valley and Mono Basin watersheds that supply the Los Angeles Aqueduct. These sources are most vulnerable to geothermal activities that release naturally occurring arsenic into creeks that feed the Owens River. Other activities that impact water quality in these watersheds are livestock grazing, wildlife, and unauthorized public use of storage reservoirs. The impact to water quality from these activities is deemed to be minimal. Regular monitoring for Cryptosporidium and Giardia indicates that their presence is infrequent and at very low levels.

Groundwater Supply: Assessment for groundwater sources in the San Fernando and Sylmar Basins was updated in 2013. Assessment for groundwater sources in the Central Basin was completed in March 2002 but will be updated within the next 12 months. Located in highly urbanized areas, the local wells within these aquifers are most vulnerable to the following activities: dry cleaning, chemical processing and storage, fertilizer and pesticide storage, metal finishing, and septic systems. The local groundwater supplies are managed with treatment and blending of water from other sources to ensure compliance with drinking water standards. A copy of the surface water and groundwater assessments can be obtained by contacting Tom Dailor of LADWP Water Quality Regulatory Affairs at (213) 367-0921.

Purchased Supplies: The Metropolitan Water District of Southern California (MWD) updated the sanitary survey of the Colorado River watershed in 2010. The Colorado River Aqueduct supply is considered to be most vulnerable to recreation, urban, and stormwater runoff, increasing urbanization in the watershed and wastewater. The California Department of Water Resources (DWR) updated the State Water Project sanitary survey in 2011. The State Water Project supply is considered to be most vulnerable to urban and storm water runoff, wildlife, agriculture, recreation, and wastewater. A copy of the assessments can be obtained by contacting MWD at (800) 354-4420.

Safeguarding Our Surface Water

Administered by the State Water Resources Control Board, Division of Drinking Water (SWRCB-DDW), the Surface Water Treatment Rule (SWTR) is a set of drinking water regulations that establish specific treatment requirements for surface water to reduce the risk of waterborne diseases. In Los Angeles, the SWTR also applied to four of 10 uncovered reservoirs: Lower Stone Canyon, Encino, and Upper and Lower Hollywood. We successfully met the compliance deadlines and treatment requirements for all four reservoirs.

The last update to the SWTR is the Long Term 2 Enhanced Surface Water Treatment Rule (LT2). This rule protects treated water reservoirs from microbiological contamination by requiring one of three actions: 1) covering, 2) removing from service, or 3) providing additional treatment. LT2 applies to the six remaining uncovered reservoirs: Los Angeles, Upper Stone Canyon, Santa Ynez, Ivanhoe, Silver Lake, and Elysian.

On March 31, 2009, a compliance agreement for LT2 was executed between LADWP and SWRCB-DDW. We are working diligently to bring all reservoirs into compliance as quickly as possible, but no later than the dates specified in the compliance agreement.

Santa Ynez Reservoir was removed from service in November 2010 for the installation of a floating cover and was placed back in service as a covered reservoir in May 2011.

Silver Lake and Ivanhoe Reservoirs. Silver Lake Reservoir was officially removed from service on December 31, 2013. An extension for additional work necessary to isolate Ivanhoe Reservoir has been granted due to unexpected delays in the commissioning of Headworks East Reservoir, which replaces Ivanhoe's storage capacity. Headworks East Reservoir came online in December 2014 and the construction of Headworks West Reservoir began in 2015. The Headworks Reservoir complex will provide the necessary system reliability when completed in late 2018 to allow Ivanhoe Reservoir to be removed from service.

Upper Stone and Elysian Reservoirs. In January 2012, the Board approved the Final Environmental Impact Report for a floating cover on Upper Stone Canyon Reservoir and followed with a similar action in April 2012 for the Elysian Reservoir. After much deliberation, the Board approved the most practical and cost-effective solutions for each reservoir: floating covers which will save LADWP customers over $100 million. Upper Stone Canyon's final design was completed and the construction bid was issued in September 2016; Elysian Reservoir was removed from service in December 2015 and construction of the Elysian Reservoir cover is expected to be complete by February 2018.

Go to www.ladwp.com/waterquality to learn more about water quality projects and issues.

Los Angeles Reservoir. Los Angeles Reservoir will remain in service. The "shading" of the reservoir was completed in 2015 when the last of nearly 100 million shade balls were deployed to control disinfection byproducts and algae. A new ultraviolet (UV) treatment plant will be built to meet new disinfection requirements for the water leaving the reservoir. Design of the UV facility has been completed and construction is expected to begin in 2017; it will be completed in 2022.

Water Treatment Process

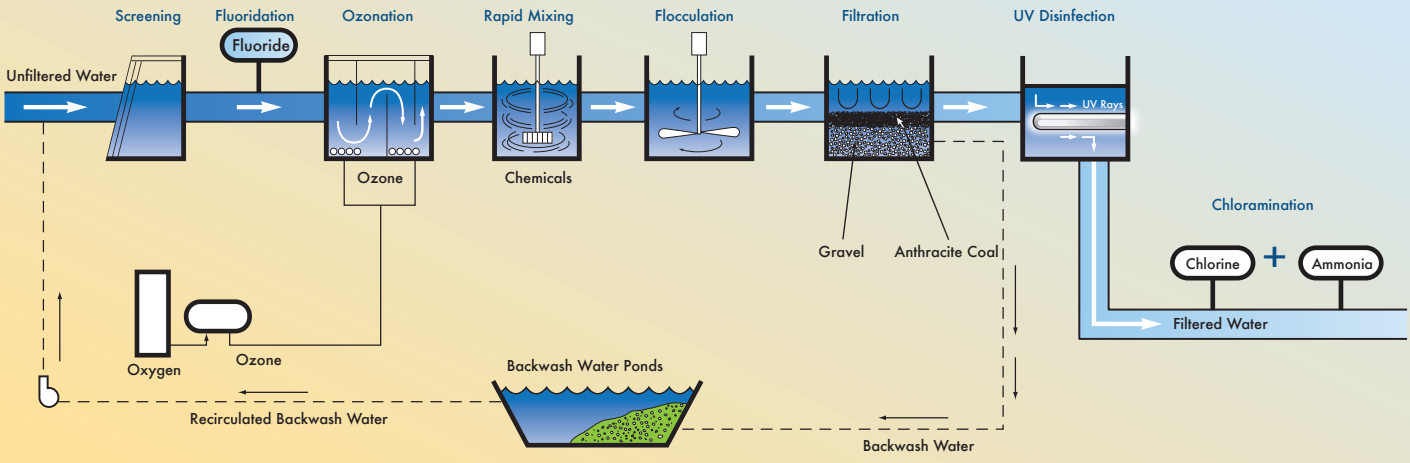
Surface Water Treatment

LADWP water comes from four different sources—three are from surface water sources like lakes and rivers and the other is groundwater from local wells and springs. The taste and appearance of surface water can vary seasonally and groundwater generally contains more minerals. All these factors make for different tasting water. Despite these variations, LADWP water meets all drinking water standards for health and aesthetics. All water coming from the Los Angeles Aqueduct, the State Water Project and the Colorado River Aqueduct is filtered and treated to ensure safe drinking water for Los Angeles.

Water from the Los Angeles Aqueduct and the State Water Project is treated at the Los Angeles Aqueduct Filtration Plant as follows:

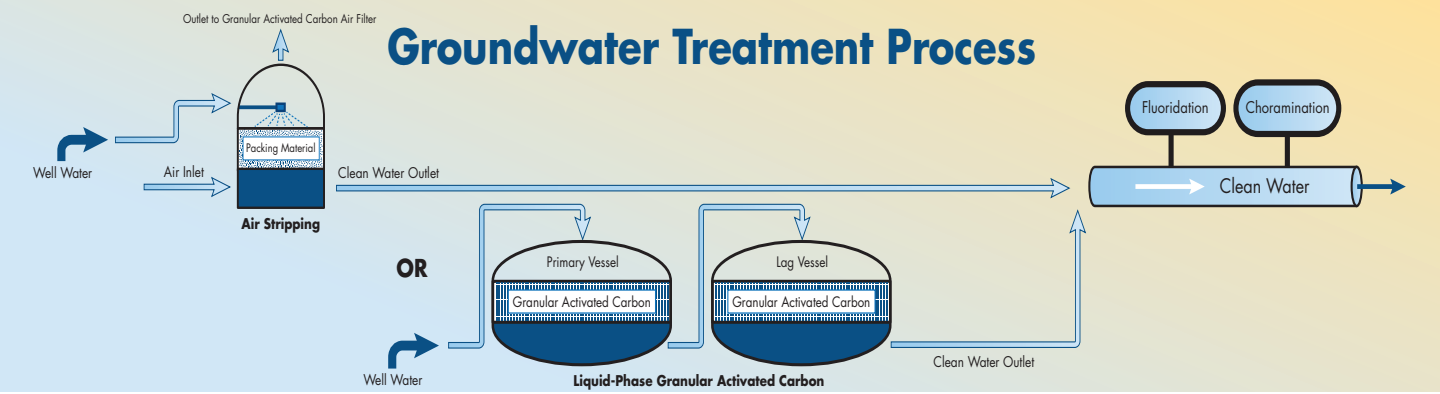
Water flows into the filtration plant by gravity and travels through screens to remove environmental debris such as twigs and dead leaves. Fluoride is adjusted to the optimal level to promote oral health by strengthening tooth enamel. Ozone, a super-charged oxygen molecule and a powerful disinfecting agent is injected into the water to help particles clump together and to improve the water's taste and appearance. Treatment chemicals are quickly dispersed into the water to make fine particles called "floc." A six-foot-deep filter composed of crushed coal over gravel removes the floc and previously added chemicals. In May 2014, we commissioned a new advanced process at the filtration plant, the Dr. Pankaj Parekh Ultraviolet (UV) Disinfection Facility, which replaces ozone as the primary disinfectant for surface water. The water goes through UV purification which has been identified as one of the most effective methods of drinking water treatment by the US EPA. Then chlorine and ammonia are added during the final step to ensure lasting disinfection and to protect the water as it travels through the city's large distribution system to your tap.

Surface Water Treatment Process



Groundwater Treatment

The city has vast groundwater supplies in the San Fernando and Central Basins. We pump from the clean parts of the basins and disinfect groundwater with chlorine and ammonia as a safeguard against microbial pathogens. As a standard practice, the City of Los Angeles has been disinfecting all groundwater sources since the 1920s. Some areas in the San Fernando Basin have been contaminated as a result of industrial activities. Since discovering man-made contaminants in the San Fernando Basin groundwater wells, we continuously monitor and ensure that the groundwater meets drinking water quality standards by minimizing the substances by treatment or blending. The treatment process currently in place for groundwater treatment is shown below. To recover the use of all water in the San Fernando Basin and to expand our local water supplies for emergency and drought, we are designing a comprehensive treatment facility to remove groundwater contaminants. To date, we have completed the initial characterization and source assessment of the San Fernando Basin and have begun the initial design phase. Future facilities may use state-of-the-art processes like advanced oxidative process, ultraviolet, and biological treatment. Our goal is for this treatment system to be fully operating by year 2022.



Water Quality at Home

Q: Is there lead in my water?

A: No. The water we deliver to you has no lead. We test the water regularly and find no detectable amounts of lead in any of our water sources or only trace amounts in the distribution system. To see the results of our most recent lead and copper analyses, see page 14.

However, there are two potential sources of lead in tap water. The most common source of lead is your faucet. Some manufacturers previously used metal alloys that contain a significant amount of lead. When water remains in the faucet, without being used for several hours, lead from the faucet can dissolve into the water. Then, when you turn the faucet on, the water that comes out for the first 20 or 30 seconds may contain lead. Similarly, copper pipes joined with lead-based solder in your plumbing system, is another potential source of lead. This source should not be significant if your home was built after 1990, because lead-based solders were banned in the United States in 1986.

If you would like to test the water in your home or business, services are available from private laboratories for a fee. A lead test usually costs around $50. You can obtain references for qualified laboratories by contacting the California State Water Resources Control Board, Laboratory Accreditation Program at (916) 323-3431.

Here are a few simple steps you can follow to minimize your exposure to lead from your faucet:

- If a faucet has not been used for more than six hours, let the cold water run for about one minute before using the water for cooking or drinking. You may want to capture and use this water for irrigation.
- Do not use hot tap water for cooking or drinking. Lead dissolves more readily from pipes that carry hot water.
- Periodically (approximately every three months) remove the faucet aerator, let the hot water run for 30 seconds to flush out debris, clean the aerator and reinstall.
- If you replace a faucet, select a new one that complies with the provisions of the National Sanitary Foundation (NSF) ANSI 61 Standard. Compliance is usually identified on the package.

If you determine there is lead in your tap water, a list of a list of NSF-certified lead-free water faucets and plumbing materials is available by contacting the NSF Consumer Affairs or (800) 673-6275 or by going to www.NSF.org. Also, check that any faucet you are planning to purchase is NSF-approved. If you choose a water filter, you should follow the installation and maintenance instructions very carefully. An improperly installed or poorly maintained filter can adversely affect the quality of your water.

TIP! To get the freshest, best tasting tap water, fill a container from a well-used faucet and store it in the refrigerator.

Water Quality Service Areas in Los Angeles

San Fernando Valley Communities

Sources: Los Angeles Aqueduct, local groundwater, and MWD State Water Project

Arleta
Canoga Park
Chatsworth
Encino
Granada Hills
Hollywood Hills
Lake View Terrace
Mission Hills
North Hills
North Hollywood
Northridge
Olive View
Pacoima
Panorama City
Porter Ranch
Reseda
Sherman Oaks
Studio City
Sun Valley
Sunland
Sylmar
Tarzana
Toluca Lake
Tujunga
Valley Village
Van Nuys
Warner Center
West Hills
Winnetka
Woodland Hills

Western Los Angeles Communities

Sources: Los Angeles Aqueduct and MWD State Water Project

Bel Air Estates
Beverly Glen
Brentwood
Castellamare
Century City
Cheviot Hills
Culver City*
Mar Vista
Pacific Palisades
Palisades Highlands
Palms
Playa del Rey
Sawtelle
Venice
West Los Angeles
Westchester
Westwood

Eastern Los Angeles Communities

Sources: MWD State Water Project and Colorado River Aqueduct

Atwater Village
Boyle Heights
Cypress Park
Eagle Rock
Echo Park
El Sereno
Glassell Park
Highland Park
Lincoln Heights
Montecito Heights
Monterey Hills
Mt. Washington

Central Los Angeles Communities

Sources: Los Angeles Aqueduct, MWD State Water Project, and local groundwater

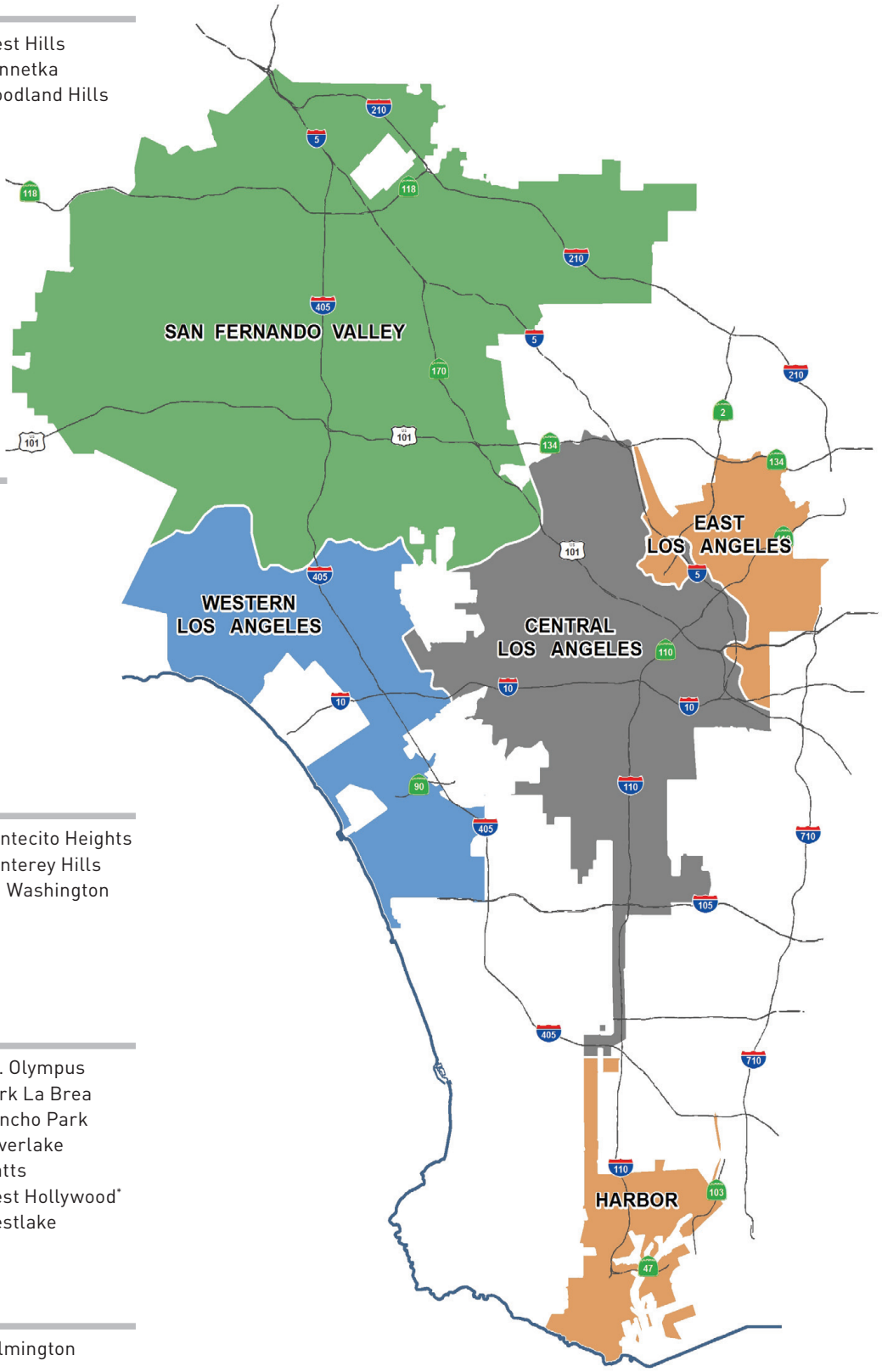
Baldwin Hills
Chinatown
Country Club Park
Crenshaw
Griffith Park
Hancock Park
Hollywood
Hyde Park
Koreatown
L.A. City Strip*
Little Tokyo
Los Feliz
Mid City
Mt. Olympus
Park La Brea
Rancho Park
Silverlake
Watts
West Hollywood*
Westlake

Harbor Communities

Sources: MWD State Water Project and Colorado River Aqueduct

East San Pedro (Terminal Island)
Harbor City
Harbor Gateway*
L.A. City Strip*
San Pedro
Wilmington

*Portions of



2016 Drinking Water Quality Monitoring Results

Tables I-III list the results of water tests performed by LADWP and MWD from January to December 2016. LADWP tests for over 200 substances. These tables include only substances with values that are detected.

How to Read the Tables

The substances found in the water served in your area are listed as follows:

- For **San Fernando Valley Area** – water test results are under the Los Angeles Aqueduct Filtration Plant, the Northern Combined Wells, and MWD Jensen Filtration Plant columns
- For **Western Los Angeles Area** – water test results are under the Los Angeles Aqueduct Filtration Plant column
- For **Central Los Angeles Area** – water test results are under the Los Angeles Aqueduct Filtration Plant and the Southern Combined Wells columns
- For **Harbor/Eastern Los Angeles Area** – water test results are under the MWD Jensen, Weymouth, and Diemer Filtration Plants columns

Some substances are reported on a citywide basis as required by the State Water Resources Control Board - Division of Drinking Water [SWRCB-DDW].

Abbreviations

ACU = apparent color unit
CFU/mL = colony-forming unit per milliliter
< = less than the detection limit for reporting purposes
µg/L = micrograms per liter (equivalent to ppb)
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter (equivalent to ppm)
NTU = nephelometric turbidity units
NA = not applicable
NR = not reported
NT = not tested
NUM/100 mL = number per 100 milliliter
% = percentage
pCi/L = picoCuries per liter
TON = threshold odor number

Unregulated Contaminant Monitoring Rule

The Unregulated Contaminant Monitoring Rule (UCMR) is a special program developed by the U.S. Environmental Protection Agency (US EPA) that requires public water systems to survey up to 30 selected contaminants of emerging concern (CECs) once every five years. LADWP conducted the Third UCMR (UCMR3) monitoring in 2013 and 2014. Values in this report reflect the sum of all tests. We are required to report the data for five years. Results indicate that most of the contaminants were not detected at the very low detection levels (MRL) required by US EPA for UCMR3 analyses. Of the contaminants that were detected (see Table IV below), chlorate and strontium were in significant, but expected concentrations.

LADWP routinely tests for and detects chlorate in the distribution system. Chlorate is a disinfection byproduct of chlorination. It is unregulated, although the State Water Resources Control Board, Division of Drinking Water (SWRCB-DDW) has set a notification level of 800 mg/L. UCMR3 test results for chlorate were much lower, ranging from not detected to 296 mg/L.

The element strontium is highly abundant on Earth as a cation (Sr+2) and its chemistry is quite similar to the calcium cation (Ca+2). In fact, strontium (as ranelic acid) is used to treat osteoporosis. Strontium in drinking water has no adverse health effects below 4,000 µg/L, the health-based Advisory Level recommended by US EPA. Strontium levels in the LADWP's treated water sources were much lower, ranging from 225-934 µg/L.

Terms Used in the Tables

Compliance: A drinking water standard based on the health risk (primary standards) and aesthetic (secondary standards) exposure of a contaminant to consumers. For example, bacteria and nitrate have strict limits that must be met at all times due to the acute effects they can cause. Other standards, like small amounts of disinfection by-products and man-made chemicals, have standards that are based on a lifetime of exposure because the risk to consumers is very low. Compliance with most standards is based on an average of samples collected within a year. This allows for some fluctuation above and below the numerical standard, while still protecting public health.

Federal Action Level (AL): Concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow. ALs are set by U.S. Environmental Protection Agency (US EPA).

Federal Minimum Reporting Level (MRL): Lowest level of a contaminant which can be detected in drinking water using analytical methods established by the US EPA. Data reported in Table IV reflect MRLs.

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

Maximum Residual Disinfectant Level (MRDL): 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.

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

Notification Level (NL): Health-based advisory level established by SWRCB-DDW for chemicals in drinking water that lack MCLs.

Table I

Calendar Year 2016 Water Quality Monitoring Results

Health-based Primary Drinking Water Standards (MCLs) Substances Detected in Treated Water

Substances	Major Sources in Our Drinking Water	Units	Meet Primary Standard (YES / NO)	State Primary Standard MCL or (MRDL)	State PHG or Federal (MCLG)
Aluminum	Erosion of natural deposits; residue from surface water treatment processes	µg/L	YES	1000	600
Arsenic	Erosion of natural deposits	µg/L	YES	10	0.004
Barium	Erosion of natural deposits	µg/L	YES	1000	2000
Bromate (b)	By-product of ozone disinfection; formed under sunlight	µg/L	YES	10	0.1
Chromium, Hexavalent	Industrial discharge; erosion of natural deposits	µg/L	YES	10	0.02
Fluoride	Erosion of natural deposits; water additive that promotes strong teeth	mg/L	YES	2	1
Gross Alpha Particle Activity (c)	Naturally present in the environment	pCi/L	YES	15	0
Gross Beta Particle Activity (c)	Naturally present in the environment	pCi/L	YES	50	0
Nitrate (as N) (d)	Erosion of natural deposits; runoff and leaching from fertilizer use	mg/L	YES	10	10
Nitrate + Nitrite (as N)	Erosion of natural deposits; runoff and leaching from fertilizer use	mg/L	YES	10	10
Selenium	Erosion of natural deposits	µg/L	YES	50	30
Tetrachloroethylene (PCE)	Discharge from factories, dry cleaners, metal degreasing sites such as auto shops	µg/L	YES	5	0.06
Trichloroethylene (TCE)	Discharge from metal degreasing sites and other factories	µg/L	YES	5	1.7
Turbidity (e)	Soil runoff	NTU	YES	TT, >95%	none
Uranium (c)	Erosion of natural deposits	pCi/L	YES	20	0.43

(a) Values reflect Highest Running Annual Average (HRAA). HRAA is the highest of all Running Annual Averages (RAAs). RAA is a calculated average of all samples collected within a 12-month period, which may include test data from the previous calendar year. HRAA may be higher than the range, which is based on the test data in the reported calendar year.

(b) Bromate is tested in water treated with ozone. Bromate has also been found in water treated with chlorine in some LADWP reservoirs that have elevated bromide levels and are exposed to sunlight. Metropolitan Water District of Southern California (MWD) tests for bromate at the Diemer and Jensen Filtration Plants, which use ozone.

(c) Radiological monitoring is performed in cycles of varying frequencies. LADWP conducted all radiological analyses in 2016 for samples collected at the Los Angeles Aqueduct Filtration Plant, Northern Combined Wells and Southern Combined Wells blend points. MWD conducted all radiological analyses in 2014 for samples collected at the Weymouth, Diemer, and Jensen Treatment Plants.

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

Public Health Goal (PHG): Level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA).

Secondary Maximum Contaminate Level (SMCL): Highest level a constituent allowed in drinking water that may affect the taste, odor or appearance. SMCLs are set by the US EPA.

State Detection Limit (DLR): A detected contaminant at or above its detection level for reporting purposes. DLRs are set by the SWRCB-DDW. Data reported in Tables I through III reflect DLRs.

State Maximum Contaminant Level (MCL): Highest level of a contaminant allowed in drinking water. Primary MCLs are set as close to the Public Health Goals (PHGs) or Maximum Contaminant Level Goals (MCLGs) as is economically and technologically feasible. For certain contaminants, compliance with MCL is based on the average of all samples collected throughout the year.

Treatment Technique (TT): Required process intended to reduce the level of a contaminant in drinking water. For example, the filtration process is a treatment technique used to reduce turbidity (cloudiness in water) and microbial contaminants from surface water. High turbidities may be indicative of poor or inadequate filtration.

Los Angeles Aqueduct Filtration Plant		Northern Combined Wells		Southern Combined Wells		MWD Weymouth Plant		MWD Diemer Plant		MWD Jensen Plant	
Average	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range
<50	<50	<50	<50	<50	<50 – 85	159 (a)	77 – 220	168 (a)	120 – 240	100 (a)	<50 – 130
5 (a)	2 – 7	<2	1 – 7	<2	<2 – 4	<2	<2	<2	<2	3	3
<100	<100	<100	<100	<100	<100 – 128	144	144	138	138	<100	<100
5 (a)	<1 – 4	2	<1 – 6	2	<1 – 3	NA	NA	1 (a)	<1 - 6	7 (a)	4 – 13
<1	<1	1	<1 – 2	1	<1 – 3	<1	<1	<1	<1	<1	<1
0.8	0.7 – 0.8	0.7	0.5 – 0.8	0.7	0.6 – 0.8	0.7	0.6 – 1.0	0.7	0.6 – 0.9	0.7	0.6 – 0.8
<3	<3	4	<3 - 4	4	<3 – 4	<3	<3 – 4	<3	<3 – 4	3	<3 – 5
<4	<4 - 5	<4	<4 – 6	<4	<4 – 6	5	4 – 6	5	4 – 6	<4	<4 – 5
0.6	0.5 - 0.7	2.8	0.4 – 3.9	2.8	<0.4 – 4.9	<0.4	<0.4	<0.4	<0.4	0.8	0.6 - 0.9
0.6	0.5 – 0.7	2.8	0.7 – 3.8	2.8	<0.4 – 4.9	NR	NR	NR	NR	NR	NR
<5	<5	<5	<5 - 5	<5	<5 - 5	<5	<5	<5	<5	<5	<5
<0.5	<0.5	<0.5	<0.5 – 0.8	<0.5	<0.5 - 0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<0.5	<0.5	0.9	<0.5 – 2	0.9	<0.5 – 1.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
100%	0.28	NA	NA	NA	NA	100%	0.03	100%	0.07	100%	0.05
3	2 – 4	4	3 – 4	4	<1 – 4	3	2 – 3	3	2 – 3	2	2 – 3

(d) In 2015, SWRCB-DDW revised the reporting method for nitrate. Previously, nitrate data was expressed as "Nitrate (as NO3)," which has an MCL of 45 mg/L. Nitrate data is now expressed as nitrogen or "Nitrate (as N)," which has an equivalent MCL of 10 mg/L. The MCL for nitrate has not changed.

(e) Turbidity is a measure of the cloudiness of water and is a good indicator of water quality and filtration performance. High turbidity can hinder the effectiveness of disinfectants. The Primary Drinking Water Standard for turbidity (included in this table) at water filtration plants is less than or equal to 0.3 NTU in at least 95 percent of the measurements taken in any month and shall not exceed 1.0 NTU at any time. The reporting requirement for treatment plant turbidity is to report the highest single measurement in the calendar year (listed under "range") as well as the lowest monthly percentage of measurements that are less than or equal to 0.3 NTU. The percentage is listed under "average."

Table 1 - (cont'd) Health-based Primary Drinking Water Standards (MCLs) Substances Detected in Treated Water and Reported on City-wide Basis

Substances	Major Sources in Our Drinking Water	Units	Meets Primary Standard (YES/NO)
Bromate (uncovered reservoirs)	By-product of ozone disinfection; formed under sunlight	µg/L	YES
Chlorine Residual, Total	Drinking water disinfectant added for treatment	mg/L	YES
Copper (at-the-tap) AL = 1300 (f)	Internal corrosion of household water plumbing systems	µg/L	YES
Fluoride	Erosion of natural deposits; water additive that promotes strong teeth	mg/L	YES
Haloacetic Acids (Five) (HAA5)	By-product of drinking water disinfection	µg/L	YES
Lead (at-the-tap) AL = 15 (f)	Internal corrosion of household water plumbing systems	µg/L	YES
Total Coliform Bacteria	Naturally present in the environment	% Positives	YES
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	µg/L	YES

(a) Values reflect Highest Running Annual Average (HRAA). HRAA is the highest of all Running Annual Averages (RAAs). RAA is a calculated average of all samples collected within a 12-month period, which may include test data from the previous calendar year. HRAA may be higher than the range, which is based on the test data in the reported calendar year.

(f) At-the-tap monitoring of lead and copper is conducted every three years as required by the federal Lead and Copper Rule. A system is out of compliance if the federal Action Level is exceeded in more than 10-percent of all samples collected at the customers' tap. The most recent monitoring was conducted in 2015. Although the City's treated water has little or no detectable lead, studies were conducted and corrosion control implementation started. A small corrosion control facility utilizing zinc-orthophosphate (temporarily out of service for upgrades) has been in operation in the Watts area since the 1990's. Corrosion control was introduced to the Western Los Angeles area in 2010 and to the Hollywood area in 2015. Corrosion control will be expanded to the rest of the City by 2020.

Table II

Calendar Year 2016 Water Quality Monitoring Results

Aesthetic-based Secondary Drinking Water Standards (SMCLs) Substances Detected in Treated Water

Substances	Major Sources in Drinking Water	Units	Meets Secondary Standard (YES/NO)	State Secondary MCL	Los Angeles Aqueduct Filtration Plant	
					Average	Range
Aluminum	Erosion of natural deposits; residue from some surface water treatment processes	µg/L	YES	200	<50	<50
Chloride	Runoff/leaching from natural deposits; seawater influence	mg/L	YES	500	80	62 – 90
Color, Apparent (unfiltered)	Naturally-occurring organic materials	ACU	YES	15	3	<3 – 4
Manganese NL = 500	Leaching from natural deposits	µg/L	YES	50	<20	<20
Odor	Naturally-occurring organic materials	TON	YES	3	<1	<1
Specific Conductance	Substances that form ions when in water; seawater influence	µS/cm	YES	1600	538	360 – 780
Sulfate (as SO4)	Runoff/leaching from natural deposits	mg/L	YES	500	66.9	50.4 – 81.9
Total Dissolved Solids (TDS)	Runoff/leaching from natural deposits	mg/L	YES	1000	335	192 – 358
Turbidity (d)	Soil runoff	NTU	YES	5	<0.1	<0.1 – 0.1
Zinc	Run off/leaching from natural deposit	µg/L	YES	5000	<50	<50

(a) Values reflect Highest Running Annual Average (HRAA). HRAA is the highest of all Running Annual Averages (RAAs). RAA is a calculated average of all samples collected within a 12-month period, which may include test data from the previous calendar year. HRAA may be higher than the range, which is based on the test data in the reported calendar year.

Table I

State Primary Standard MCL or (MRDL)	State PHG / [MRDLG] or Federal (MCLG)	Average	Range
10	0.1	HRAA = 6 (a)	Range = <1 – 5
(4)	[4]	HRAA = 2 (a)	Range = 1.8 – 2.3
TT	300	90th Percentile value = 579	Number of samples exceeding AL = 1 out of 103
2	1	Average = 0.7	Range = 0.7
60	none	HLRAA = 17 (g)	Range = 4 – 18
TT	0.2	90th Percentile value = 6.3	Number of samples exceeding AL = 3 out of 103
5% of monthly samples are coliform positive	0	Highest monthly % positive samples = 1.8 %	Range = % positive samples 0 – 1.8
80	none	HLRAA = 50 (g)	Range = 15 – 52

(g) The federal Stage 2 Disinfectant/Disinfection Byproducts Rule (DBPR) requires compliance monitoring and reporting for haloacetic acids (HAAs) and total trihalomethanes (TTHMs) based on a locational running annual average (LRAA) of established monitoring locations. The value for the location with the Highest Locational Running Annual Average (HLRAA) for HAAs and TTHMs in 2016 is reported.

Table II

Northern Combined Wells		Southern Combined Wells		MWD Weymouth Plant		MWD Diemer Plant		MWD Jensen Plant	
Average	Range	Average	Range	Average	Range	Average	Range	Average	Range
<50	<50	<50	<50 – 85	159 (a)	77 – 220	168 (a)	120 – 240	100 (a)	<50 – 130
58	46 – 87	58	25 – 90	103	103	103	102 – 103	93	89 – 97
4	4	4	3 – 5	1	1	1	1	2	1 - 2
<20	<20	<20	<20 – 41	<20	<20	<20	<20	<20	<20
<1	<1	<1	<1	2	2	3	3	3	3
738	420 – 1000	738	380 – 1100	1,035	1,020 – 1,050	1,040	1,030 - 1,050	687	652 – 721
159.3	52.3 – 185	159.3	75.5 – 248	258	256 - 259	260	257 - 262	95	86 - 104
520	304 – 571	520	338 – 739	655	650 - 659	654	650 - 658	400	377 - 423
<0.1	<0.1 – 0.2	<0.1	<0.1 – 0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
<50	<50	<50	<50 – 1,080	<50	<50	<50	<50	<50	<50

(d) The Secondary Drinking Water Standard for turbidity for drinking water in the distribution system is 5 NTU. Values reflect testing at entry points to the distribution system.

Table III

Calendar Year 2016 Water Quality Monitoring Results

Unregulated Drinking Water Substances Detected in Treated Water

Substances	Major Sources in Drinking Water	Units	Los Angeles Aqueduct Filtration Plant		Northern Combined Wells	
			Average	Range	Average	Range
Alkalinity, Total (as CaCO3)	Erosion of natural deposits	mg/L	100	88 – 111	166	100 – 184
Bicarbonate (HCO3)	Naturally-occurring dissolved gas; erosion of natural deposits	mg/L	122	107 – 135	203	121 – 224
Boron NL = 1000	Erosion of natural deposits	µg/L	333	277 – 474	258	183 – 450
Bromide	Runoff/leaching from natural deposits; seawater influence	µg/L	170	110 – 240	160	70 – 220
Calcium	Erosion of natural deposits; natural hot springs	mg/L	31	28 – 35	78	32 – 90
Hardness, Total (as CaCO3)	Erosion of natural deposits	mg/L	126	109 – 138	283	121 – 323
Heterotrophic Bacteria	Naturally present in the environment	CFU/mL	<1	<1 - 2	<1	<1 – 9
Magnesium	Erosion of natural deposits	mg/L	12	10 – 13	21	10 – 24
pH	Naturally-occurring dissolved gases and minerals	Unit	7.6	7.0 – 8.6	7.6	7.0 – 8.4
Phosphate (as PO4)	Erosion of natural deposits, agricultural run-off	µg/L	61	43 – 71	116	61 – 126
Potassium	Erosion of natural deposits	mg/L	4	3 - 5	4	3 – 5
Silica (as SiO2)	Erosion of natural deposits	mg/L	15	14 – 16	21	15 – 23
Sodium	Erosion of natural deposits	mg/L	70	60 – 77	66	48 – 82
Temperature (field)	Natural seasonal fluctuation	°C	18	11 – 24	20	11 – 30
Total Coliform	Naturally present in the environment	NUM/ 100mL	<1	<1	<1	<1 – 19
Total Organic Carbon (TOC)	Erosion of natural deposits	mg/L	2.2	1.8 – 2.7	1.1	0.9 – 2.4
Vanadium NL = 50	Erosion of natural deposits	µg/L	<3	<3	<3	<3 – 6

(a) Values reflect Highest Running Annual Average (HRAA). HRAA is the highest of all Running Annual Averages (RAAs). RAA is a calculated average of all samples collected within a 12-month period, which may include test data from the previous calendar year.HRAA may be higher than the range, which is based on the test data in the reported calendar year.

Table IV

Calendar Year 2016 Water Quality Monitoring Results

The Third US EPA Unregulated Contaminant Monitoring Rule (UCMR3) Substances Detected In Treated Water

Substances	Units	Meets MCL or NL (YES / NO)	State Primary Standard MCL or (NL)	State PHG or Federal (MCLG)
1,1-Dichloroethane (1,1-DCA)	µg/L	YES	5	3
1,4-Dioxane	µg/L	YES	(1)	NA
Bromochloromethane	µg/L	NA	NA	NA
Chlorate	µg/L	YES	(800)	NA
Chlorodifluoromethane	µg/L	NA	NA	NA
Chromium, Hexavalent (CrVI)	µg/L	YES	10	0.02
Chromium, Total (Total Cr)	µg/L	YES	50	(100)
Molybdenum	µg/L	NA	NA	NA
Strontium	µg/L	NA	NA	4,000 (h)
Vanadium	µg/L	YES	(50)	NA

(h) Health-based Advisory Level recommended by US EPA.

Table III

Southern Combined Wells		MWD Weymouth Plant		MWD Diemer Plant		MWD Jensen Plant	
Average	Range	Average	Range	Average	Range	Average	Range
166	128 – 199	118	113 – 124	120	115 – 124	94	92 – 95
203	156 – 242	140	122 - 151	144	128 - 154	114	107 - 117
258	101 – 354	150	150	150	150	270	270
160	<20 – 220	NT	NT	NT	NT	NT	NT
78	58 – 90	77	75 - 79	76	75 - 76	33	30 - 36
283	189 – 332	300	293 - 306	296	292 - 300	129	126 - 132
<1	<1 – 10	<1	<1 - 1	<1	<1 - 1	<1	<1 - 1
21	11 – 30	26	25 – 27	27	26 – 27	12	12
7.6	7.0 – 8.3	8.1	8.1	8.1	8.1	8.3	8.3
116	43 – 1,180	NT	NT	NT	NT	NT	NT
4	3 – 5	5	5	5	5	3	3
21	9 – 27	8	7 - 10	8	7 - 9	14	13 - 15
66	45 – 102	105	104 - 106	103	99 - 107	89	84 - 94
20	13 – 30	20	14 - 26	21	14 - 27	20	15 - 23
<1	<1 – 19	NA	NA	NA	NA	NA	NA
1.1	0.3 – 2.5	2.5 (a)	1.7 - 2.8	2.5 (a)	2.1 - 2.6	2.2 (a)	1.8 - 2.8
<3	<3	<3	<3	<3	<3	7	7

Table IV

Los Angeles Aqueduct Filtration Plant		Northern Combined Wells		Southern Combined Wells	
Average	Range	Average	Range	Average	Range
<0.03	<0.03	<0.03	<0.03 – 0.04	<0.03	<0.03 – 0.04
<0.07	<0.07	0.4	<0.07 – 0.9	0.4	<0.07 – 0.9
<0.06	<0.06	<0.06	<0.06 – 0.1	<0.06	<0.06 – 0.9
<20	<20	130	<20 – 296	130	<20 – 186
0.18	<0.08 – 0.7	<0.08	<0.08 – 0.4	<0.08	<0.08 – 0.14
0.2	0.1 – 0.4	1	0.2 – 1.6	1	<0.03 – 3.3
0.2	<0.2 – 0.4	1	0.2 – 1.5	1	<0.2 – 3.2
5	3 – 7	7	3 – 9	7	3 – 10
242	225 – 279	432	255 – 550	432	259 – 934
1.6	1 – 2	2.2	1.4 – 3.3	2.2	<0.2 – 2.7

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General Information

This annual Drinking Water Quality Report (also known as a Consumer Confidence Report) is required by the California State Water Resources Control Board, Division of Drinking Water (SWRCB-DDW) and is prepared in accordance with their guidelines. The report is available both online at www.ladwp.com/waterqualityreport or you can call (800) DIAL-DWP to request a copy be mailed to you. LADWP, the largest municipal utility in the nation, was established more than 100 years ago. The utility now provides a reliable and safe water and electric supply to the city's more than 4 million residents and businesses.

LADWP is governed by a five-member Board of Water and Power Commissioners, appointed by the Mayor and confirmed by the City Council. The Board meets regularly on the first and third Tuesdays of each month at 10:00 a.m.

Meetings are held at:

Los Angeles Department of Water and Power
111 North Hope Street, Room 1555H
Los Angeles, CA 90012-2694

The meeting agenda is available to the public on the Thursday prior to the week of the meeting. You can access the Board agenda at www.ladwp.com/board or by calling (213) 367-1351.

For general information about LADWP, call (800) DIAL-DWP (1-800-342-5397) or visit www.ladwp.com.

For questions regarding this report, please contact Mr. Nathan Aguayo at (213) 367-4941, Nathan.Aguayo@ladwp.com or call the water quality hotline at (213) 367-3182.

Want to know more about your drinking water and related regulations?

Los Angeles Department of Water and Power
www.ladwp.com

California State Water Resources Control Board, Division of Drinking Water (SWRCB-DDW)
www.waterboards.ca.gov/drinking_water/programs

U.S. Environmental Protection Agency (US EPA)
www.epa.gov/safewater

LADWP's website has a wealth of information specific to improving water quality in your home. If you have specific water quality questions or problems, you should call anytime at (800) DIAL-DWP or contact us on the web at www.ladwp.com/waterquality.

Here are some useful links for more information on home water filters, visit www.consumerreports.org/cro/water-filters.

For more information about the NSF certification, call (800) 673-6275 or visit www.nsf.org.

For more information about SWRCB-DDW certification of home water filters, call (916) 449-5622 or visit www.waterboards.ca.gov/drinking_water/certlic/device/watertreatmentdevices.shtml.

This Message is for Non-English Speaking LADWP Customers

This report contains important information about your drinking water. If you have any questions regarding this report, ask someone to translate it for you.

Spanish
Este informe contiene información importante sobre su agua potable. Si tiene alguna pregunta sobre este informe, por favor pídale a alguien que lo traduzca por usted.

Arabic
"هذا ألتقرير يحتوي على معلومآ ت مهمّة تتعلق بمياه ألشفة (أو ألشرب).
ترجم ألتقرير , أو تكلم مع شخص يستطيع أن يفهم ألتقرير."

Armenian
Այս հաշվետվությունը պարունակում է կարևոր տեղեկատվություն ձեր խմելու ջրի մասին։ Թարգմանե՛ք այն, կամ խոսե՛ք որևէ մեկի հետ, ով հասկանում է դրա բովանդակությունը։

Croatian
Ovo izvješće sadrži važne informacije o vašoj vodi za piće.
Neka ga neko prevede ili razgovarajte s nekim tko ga je u stanju pročitati.

Chinese
此份有關您的飲用水質報告，內有重要資料和訊息。
假如您對此報告有任何疑問，請找人為您翻譯及解釋清楚。

Farsi (Persian)
این اطلاعیه شامل اطلاعات مهمی راجع به آب آشامیدنی است.اگر نمیتوانید این اطلاعات را بزبان انگلیسی بخوانید لطفاازکسی که میتواند یاری بگیرید تامطالب را برای شما به فارسی ترجمه کند.

French
Cé rapport contient des information importantes concernant votre eau potable. Veuillez traduire, ou parlez avec quelqu' un qui peut le comprendre.

German
Dieser Bericht enthält wichtige Information über Ihr Trinkwasser. Bitte übersetzen Sie ihn oder sprechen Sie mit jemandem, der ihn versteht.

Gujarati
આ અહેવાલ આપના પીવાના પાણી વિશે અગત્યની માહિતી ધરાવે છે. તેનું ભાષાંતર કરો, અથવા તે સમજતું હોય તેવી કોઈ વ્યક્તિ સાથે વાત કરો.

Greek
Η κατοθεν αναφορα παρουσιαζη σπουδαιες πληροφορειες για το ποσιμο νερο σας. Πρακάκλω να το μεταφρασετε η να το σξολειασετε με καποιον που το καταλαβαινη απολητως.

Hebrew
הדו"ח הזה מכיל מידע חשוב לגבי מי השתייה שלך
תרגם את הדו"ח או דבר עם מישהו שמבין אותו

Hindi
यह सूचना महत्वपूर्ण है ।
कृपा करके किसी से :सका अनुवाद करायें ।

Hungarian
Ez a jelentés fontos információt tartalmaz az Ön által fogyasztott ivóvízről. Fordítsa le, vagy beszéljen valakivel, aki megérti

Italian
Questo rapporto contiene informazioni inportanti che riguardano la vostra aqua potabile. Traducetelo, o parlate con una persona qualificata in grado di spiegarvelo.

Japanese
この情報は重要です。
翻訳を依頼してください。

Khamer (Cambodian)
របាយការណ៍នេះមានពត៌មានសំខាន់អំពីទឹកបរិភោគ ។ សូមបកប្រែឬពិគ្រោះជាមួយអ្នកដែលមើលយល់របាយការណ៍នេះ ។

Korean
이 안내는 매우 중요합니다.
본인을 위해 번역인을 사용하십시요.

Polish
Ta broszura zawiera wazne informacje dotyczace jakosci wody do picia. Przetlumacz zawartosc tej broszury lub skontaktuj sie z osoba ktora pomoze ci w zrozumieniu zawartych informacji.

Portuguese
Este relatório contém informações importantes sobre a água que você bebe. Traduza-o ou converse a respeito dele com alguém que entenda o documento.

Russian
Этот отчет содержит важную информацию о вашей питьевой воды. Переведите его или поговорите с тем, кто это понимает.

Serbian
Овај извештај садржи важне информације о вашој води за пиће.
Нека га неко преведе или разговарајте са неким ко може да га прочита.

Tagalog
Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

Thai
รายงานนี้ประกอบด้วยข้อมูลที่สำคัญเกี่ยวกับน้ำดื่มของคุณ หากคุณไม่สามารถเข้าใจเนื้อหา

โปรดพูดคุยกับผู้ที่เข้าใจเนื้อหาในรายงานนี้

Urdu
اس رپورٹ میں آپ کے پینے کے پانی کے بارے میں اہم معلومات ہے۔ اس کا ترجمہ کریں، یا کسی ایسے شخص سے بات کریں جو اسے سمجھ سکے۔

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

1-800-DIAL-DWP
(1-800-342-5397)


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