

## 2018 WATER QUALITY REPORT

Partners in Environmental Protection The City of Beverly Hills Public Works Department values transparency; we hope you find this report clear and easy to understand. If you have any questions, please call us at 310.285.2467.

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### A Message From Public Works

In 2018, Beverly Hills' water quality met or surpassed all public health standards set by state and federal regulations.

Read this report to learn more about the water provided by Beverly Hills and how the City delivers the highest quality of water year after year. You'll also learn ways you can conserve and protect this precious resource. As your Beverly Hills Public Works Department, we are committed to providing residents, businesses as well as visitors with a reliable supply of high-quality water 24/7 every day, 365 days a year. Our water service goal is straightforward: we strive to deliver quality, service and value in everything we do, while maintaining our focus on water quality, water efficiency, developing our local water supply and promoting sustainable practices.

Maintaining high water quality standards and protecting our customers' health and safety is our highest priority. We constantly monitor and sample the water in our distribution system to ensure the water we provide to you meets or surpasses increasingly stringent water quality standards. Over the last year, we tested more than 113 constituents. We are pleased to confirm that we met every primary and secondary state and federal water quality standard in 2018. This report provides you the results of our annual quality monitoring efforts as well as information of interest to residents, including water conservation.

In Beverly Hills, water efficiency is a way of life. Although mandatory water conservation requirements are no longer in place, please keep working on using water as efficiently as possible. Beverly Hills maintains a robust conservation program with tools and rebates to help you use water efficiently, which is especially important since we live in a traditionally dry climate. We encourage you to take advantage of our program, which will help you maintain your landscape's healthy appearance while reducing your water use significantly as we head into the warmer months.

We're getting closer to developing our local water supply, with design efforts starting on the recommissioning of our water treatment plant. Along with the rehabilitation of our existing wells and development of new wells, we anticipate producing local water from our groundwater supplies near the end of next year. Meanwhile, we're still purchasing our water from Metropolitan Water District, which is why Metropolitan's water is referenced in the water quality tables of this report.



You'll be reading more about sustainability in the coming year. We're updating the City's Sustainability Plan, and planning on hosting a series of sustainability talks and presentations beginning in the Fall of 2019. The United Nations defines sustainability as "meeting the needs of the present without compromising the ability of future generations to meet their own needs." In the long-term, sustainability for Beverly Hills means that the City has the capacity to provide the desired levels of service now and in the future. In the short term, providing opportunities to learn about and support the creation and development of a sustainable city can result in a community where residents, businesses and visitors continue to thrive.

Water is only a part of what we do, and it's important that you as consumers are aware of the water quality delivered to you. Please review this year's Water Quality Report and feel free to call us with any questions you may have. On behalf of the dedicated women and men of the Beverly Hills Public Works Department, thank you for your continuing trust in allowing us to serve you.

Sincerely,

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**Gil Borboa** Assistant Director of Public Works Utilities Division





ما به عنوان ادارهٔ Beverly Hills Public Works منابع آب با کیفیت Department متعهد هستیم که منابع آب با کیفیت بالا را به صورت ۲۴ ساعته در ۷ روز هفته و ۳۶۵ روز سال برای ساکنان، بنگاههای تجاری و همین طور توریستها و سیاحان ارائه نماییم. هدف ما در خدمات رسانی آب کاملا روشن و ساده است: ما در تلاش انجام میدهیم وارد نماییم و در عین حال تمرکز خود را بر حفظ کیفیت آب، بهرهوری آب، افزایش منابع آب محلی و ترویج روشهای پایدار زیست محیطی قرار دادهایم.

نگهداشتن استانداردهای بالای کیفیت آب و حفاظت از سلامتی و ایمنی مشتریان برای ما در بالاترین اولویت قرار دارد. ما بهطور مداوم آب موجود در سامانهٔ توزیع خود را زیر نظارت داریم و از آن نمونهبرداري ميكنيم تا اطمينان پيدا كنيم كه آب ارائه شده به شما با استانداردهای کیفیت آب که هر روز سخت گیری بیشتری در آنها اعمال می شود مطابقت داشته یا از حد آنها بالاتر باشد. ما در طول یک سال گذشته بیشتر از ۱۱۳ جزء موجود در آب را آزمایش نمودهایم. خوشحالیم که تأیید کنیم همهٔ موارد اولیه و ثانویه در استانداردهای ایالتی و فدرال کیفیت آب را در ۲۰۱۸ برآورده نمودهایم. این گزارش، جزئیات نتایج تلاشهای نظارت سالانهٔ ما بر کیفیتآب و همچنین اطلاعات مورد علاقهٔ ساکنان از جمله میزان صرفهجویی در آب را در دسترس شما می گذارد.

بهرموری آب در Beverly Hills یک روش زندگی است. اگرچه امروزه موازین صرفهجویی اجباری در آب برداشته شدهاند، اما لطفا به کار خود برای استفادهٔ بهینه از آب تا جایی که ممکن باشد ادامه دهید. شهر صرفهجویی شامل ابزارها و تخفیفهای صرفهجویی در آب را دنبال میکند که به شما در استفادهٔ بهینه از آب کمک مینماید؛ این برنامه بهویژه بسیار اهمیت دارد زیرا ما در آب و هوایی زندگی میکنیم که بهطور تاریخی خشکساراست. ما شما را تشویق میکنیم تا از مزایای برنامهٔ ما استفاده نمایید که به شما کمک

ظاهر سالم باغ و گلکاری منظرهٔ اطراف منزل خودتان را حفظ کنید و در همین حال میزان مصرف آب را بهطور چشمگیر کاهش دهید.

ما در حال نزدیک شدن به هدف خود برای ایجاد منبع آب محلی خودمان هستیم و تلاشهای طراحی برای تصدی دادن دوباره به کارخانهٔ فراوری آب خودمان آغاز شده است. انتظار داریم که با احیای چاههای آب موجود و تأسیس چاههای جدید، تا نزدیکی پایان سال آینده بتوانیم میزانی از آب لازم را به صورت محلی از منابع زیرزمینی تأمین نماییم. درحال حاضر ما هنوز آب مورد نیاز را از حوزهٔ آب شهری Metropolitan Water District خریداری می کنیم و به خاطر همین هم آب Metropolitan در جدولهای کیفیت آب این گزارش آورده شده است.

شما در سالی که میآید گزارشهای بیشتری را دربارهٔ پایداری زیستمحیطی دریافت خواهید نمود. ما در حال ترفيعبرنامة پايدارى زيستمحيطى شهر هستيم و در نظر داریم که در پاییز ۲۰۱۹ میزبان یک سری گفتگوها و ارائهٔ سمینارها دربارهٔ پایداری زیستمحیطی باشیم. «سازمان ملل متحد» پایداری زیستمحیطی را به صورت "برآورده نمودن نیازهای زمان حاضر بدون به خطر انداختن توانایی نسلهای آینده برای برآورده ساختن نیازهای خودشان" تعریف مینماید. پایداری زیستمحیطی در بلند مدت برای Beverly Hills به این معنی است که شهر در زمان حاضر و در آینده دارای ظرفیت لازم برای ارائهٔ سطوح دلخواه خدمات باشد. در كوتاه مدت، ارائهٔ فرصتها برای یادگیری بیشتر دربارهٔ ایجاد و گسترش یک شهر پایدار و حفاظت از آن می تواند منجر به ایجاد جامعهای گردد که ساکنان، بنگاههای تجاری و بازدید کنندگان در آن بتوانند رشد و پیشرفت کنند.

آب تنها بخشی از کارهای ما است و این نکته اهمیت دارد که شما به عنوان مصرف کننده از کیفیت آبی که به شما ارائه میشود آگاه باشید. لطفا گزارش امسال برای کیفیت آب را مرور کنید و اگر هر گونه پرسشی دارید آزادانه با ما تماس بگیرید. ما از طرف زنان و مردان متعهد در Beverly Hills Public زنان و مردان متعهد در Works Department اجازه برای خدمات رسانی به شما سپاسگزاریم.

با احترام،

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دستیار سرپرست بخشPublic Works

## پیامی از طرف ادارهٔ Public Works

خدمت به شما افتخار ما است. تعهد ما برای نگهداشتن Beverly Hills به عنوان شهری در ردهٔ جهانی همچنان پابرجا است.

## Drinking Water and Your 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 the water poses a health risk.

More information about contaminants and potential health effects can be obtained by calling the United States Environmental Protection Agency's (U.S. EPA) Safe Drinking Water Hotline at 800.426.4791.

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:

Water agencies are required to provide an annual water quality report that informs you where your drinking water comes from and what's in it. **Microbial contaminants,** such as viruses and bacteria, which 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 runoffs, agricultural application, and septic systems

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

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. 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. Additional information on bottled water is available on the California Department of Public Health website at https://www.cdph.ca.gov/Programs/ CEH/DFDCS/Pages/FDBPrograms/ FoodSafetyProgram/Water.aspx.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants or have HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections.

These people should seek advice about drinking water from their health care providers. U.S. EPA/Centers for Disease Control 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.

## People with Weakened Immune Systems

## Additional Information of Interest

If you are concerned about fluoride in your drinking water, additional information is available from the Center of Disease Control at cdc.gov/OralHealth/ and the American Dental Association at ada.org/ fluoride.aspx.

Why Additional Chemicals Are Added To Your Water

#### To Disinfect.

The City is required to disinfect your water to prevent waterborne pathogens by using chloramines, a compound of chlorine and ammonia. This type of disinfectant is very stable and reduces the formation of disinfection by-products in your water. We carefully monitor the amount of chloramine disinfectant to protect the safety of your water.

#### **To Improve Dental Health.**

For 70 years, Americans have benefited from drinking water with fluoride, leading to better dental health. Drinking fluoridated water keeps teeth strong and reduces cavities by about 25% in children and adults. Because of these health benefits, the State of California has mandated all large system water suppliers to begin fluoridating their water systems. The City of Beverly Hills and Metropolitan adjust the natural fluoride concentration in the water to promote dental health. The fluoride levels in your water are maintained within a range of 0.6 to 1.2 parts per million, as required by the Division of Drinking Water. The Centers for Disease Control and Prevention named community water fluoridation one of 10 great public health achievements of the 20th century. For more information about fluoridation, oral health, and current issues, you can visit the State Board's fluoridation website at (http://www.waterboards.ca.gov/ drinking\_water/certlic/drinkingwater/ Fluoridation.shtml).

**Chloramines:** Chloraminated water is safe for people and animals to drink, and for all other general uses. Three special user groups, including kidney dialysis patients, aquarium owners, and businesses or industries that use water in their treatment process, must remove chloramine from the water prior to use.

> Hospitals or dialysis centers should be aware of chloramine in the water and should install proper chloramine removal equipment, such as dual carbon adsorption units.

> > Aquarium owners should use readily available products to remove or neutralize chloramine. Businesses and industries that use water in any manufacturing process or for food or beverage preparation should contact their water treatment equipment supplier regarding special equipment needs.

#### **Keeping Your Fish Healthy & Safe**

Adding tap water with chlorine or chloramine to a tank can kill off fish quickly. It can also kill off important bio-filter bacteria. To keep your fish healthy and safe, be sure to specially treat your tap water before using it in your fresh or salt-water aquarium or pond.

## Additional Information of Interest

Lead. 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. The City of Beverly Hills is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you 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 do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.

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 U.S. EPA Safe Drinking Water Hotline at 800.426.4791 or at http://www.epa.gov/lead.



## **Lead In Residential Plumbing**

Homes built prior to 1986, which have had no plumbing upgrades, may have higher than acceptable lead levels in drinking water. Homes built after 1986, when laws were passed restricting the lead content of faucets and pipes, do not pose the same risk. The City's Treatment Plant has been offline for operational improvements. As a result, your water supply is currently being provided by Metropolitan Water District. Metropolitan imports water supplies from two main sources: the Sacramento and San Joaquin Rivers through the State Water Project and the Colorado River via the Colorado River Aqueduct.

## Sources of Your Water Supply

#### **State Water Project**

About 30 percent of Southern California's water travels a long distance though a complex delivery system called the California State Water Project. It is the nation's largest state-built water storage and delivery system of reservoirs, aqueducts, power plants and pumping plants, supplying water to 25 million Californians and 750,000 acres of farmland.

> Water supplies from Northern California are drawn from the crossroads of the Sacramento and San Joaquin rivers in the Delta region. They are transported in the State Water Project's 444mile California Aqueduct and serve urban and agricultural customers in the San Francisco Bay Area, as well as Central and Southern California.

#### **Colorado River**

Colorado River water is conveyed via the 242-mile Colorado River Aqueduct from Lake Havasu on the California-Arizona border, to Lake Mathews near Riverside. Built and operated by Metropolitan, the Colorado River Aqueduct has been the backbone of Southern California's imported water supply for more than 70 years.

> Along with the State Water Project, the Colorado River Aqueduct is one of two imported drinking water sources for Southern California. The water Metropolitan brings from both sources is first treated at the Weymouth Filtration Plant in La Verne and the Joseph Jensen Treatment Plant in Granada Hills before it is delivered to Beverly Hills.

Reconstructed 2019 Oroville Main Spillway Courtesy: California Department of Water Resources

## Protecting Water Quality at the Source

As you read earlier, water imported by Metropolitan Water District (Metropolitan) the regional agency that provides water to Beverly Hills—comes from two sources: the Colorado River and Northern California through the Sacramento-San Joaquin Delta. Each has different water quality challenges. Water from the Colorado River via the Colorado River Aqueduct is considered to be most vulnerable to contamination from recreation, urban/stormwater runoff, increasing urbanization in the watershed, and wastewater. Water supplies from Northern California via the State Water Project are most vulnerable to contamination from urban/stormwater runoff, wildlife, agriculture, recreation, and wastewater.

Source water protection is an important issue for all of California. Large agencies are required by the Division of Drinking Water (DDW) to conduct an initial source water assessment, which is then updated through watershed sanitary surveys every five years. Watershed sanitary surveys examine possible sources of drinking water contamination and recommend actions to better protect these source waters.

The most recent surveys for Metropolitan's source waters are the Colorado River Watershed Sanitary Survey – 2015 Update, and the State Water Project Watershed Sanitary Survey – 2016 Update. You can request a copy of the most recent Watershed Sanitary Surveys by calling Metropolitan at 213.217.6000.

The Drinking Water Source Assessment and Protection (DWSAP) Program conducted a source water assessment in August 2000 and completed the report on May 2001 for each groundwater well.

The groundwater sources are considered most vulnerable to the following activities not associated with detected contaminants: dry cleaning operations, park areas, residential housing, historical railroad rights-of-way, vehicle repair shops, gasoline stations, confirmed leaking underground storage tanks, utility station, parking lots, and government equipment storage areas.

A copy of the assessment may be viewed at: **DDW Los Angeles District Office** 500 N. Central Ave., Suite 500 Glendale, CA 91203

You may request a summary of the assessment be sent to you by contacting the DDW Los Angeles District Office at 818.551.2004. For more details, contact Jason W. Dyogi, Water Quality Specialist, at 310.285.2467.

## Protecting Our Local Watershed

Treatment to remove specific contaminants can be more expensive than measures to protect water at the source, which is why Beverly Hills and other water agencies invest resources to support improved watershed protection programs.

To protect and improve the water quality of our local watershed, the City of Beverly Hills partnered with the cities of Los Angeles, Culver City, Inglewood and West Hollywood as well as the County of Los Angeles and County of Los Angeles Flood Control District to form the Ballona Creek Watershed Management Group (BCWMG).

An important watershed in Southern California, the Ballona Creek Watershed covers approximately 130 square miles in the coastal plain of the Los Angeles basin, from the Santa Monica Mountains to the north, the Harbor Freeway (110) to the east, the Baldwin Hills to the South. It consists of an open 10mile concrete channel from mid-Los Angeles to the Pacific Ocean at Playa del Rey. Feeding into the channel is a network of underground storm drain lines as well as major tributaries including Centinela Creek, Sepulveda Channel and Benedict Canyon Channel.

Since 49% of the watershed is covered by impervious surfaces, it is particularly vulnerable to pollutants such as trash, metal, bacteria, and pesticides that runoff into storm drains. As such, controlling pollutants in stormwater is a major challenge for BCWMG members. Through the BCWMG's Enhanced Watershed Management Program, the City of Beverly Hills is addressing water quality issues in a comprehensive, quantitative manner, reducing bacteria levels, improving public health and beneficial uses of Ballona Creek and Estuary, leveraging sustainable green infrastructure practices while also providing a new source of freshwater to offset potable water demand.

## Investing In Our Future Water Supply

#### Delta Wetlands | Courtesy: California Department of Water Resources

The Delta is the heart of California's statewide water delivery system (California State Water Project), representing the source of 30 percent of Southern California's water supply. It's where the state's two largest rivers and their tributaries meet and mix with salt water from San Francisco Bay and the Pacific Ocean, forming a complex ecosystem.

Protecting water supply reliability from the state's single largest supply, the Sierra snowpack, and enhancing protections for the environment are far reaching investments that provide benefits for generations to come.

#### Modernizing California's Vulnerable, Outdated Water System

Modernizing the hub of the statewide water system is more critical now than ever. The Delta water system is outdated and unreliable. The system relies on levees that are vulnerable to earthquakes, floods and rising sea levels under climate change. And when these levees fail, water rushes into the lower-than-sea level islands behind them, pulling in salt water from the bay and diminishing water quality before it can be delivered to the Bay Area and Central Valley farmland and Southern California.

California WaterFix was proposed to improve the state's water conveyance infrastructure by constructing new, state-of-the art facilities that can secure more reliable water supplies, improve water quality, respond to climate change risks and protect ecosystem health.

Metropolitan made a decision to invest \$10.8 billion, nearly 65 percent of the project cost, to allow for the construction of the full WaterFix project to modernize the state's water delivery system as originally proposed and studied.

#### Realizing WaterFix: A New Portfolio Approach

Earlier this year, Governor Newsom directed public agencies funding California WaterFix to develop a portfolio approach to designing, constructing and financing the project, which replaces the proposed twin-tunnel WaterFix project with a single tunnel, smaller capacity solution.

Modernizing the Delta conveyance infrastructure paired with complementary projects that improve water recycling, recharge depleted groundwater reserves, strengthen existing levee protections and improve Delta water quality, is critical to building a resilient water supply for California's communities and economy.

Here are five reasons why California WaterFix is necessary for Southern California:

#### The Big One

A new tunnel pipeline is a safeguard against a major earthquake collapsing Delta levees, which could shut off water deliveries to millions of people, farms and businesses.

#### Drought

Nearly all of the water that is stored in Southern California for drought and emergency needs comes either from Northern California or the Colorado River.

#### Groundwater

Groundwater is Southern California's single largest local water source. Groundwater managers rely heavily on high quality water from the Delta to help replenish their basins.

#### **Big Storms**

A modernized system could capture enough water to refill reservoirs after big Sierra storms, providing flexibility and reducing conflicts with fish such as salmon.

#### **More Local Supplies**

Sierra snowmelt is pure enough to recycle again and again in Southern California, promoting more recycling projects in the region's future.



## Readers' Guide to the Water Quality Tables

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## The cornerstone of the Water Quality Report is a series of data tables that list the results of year-round monitoring for nearly 400 constituents.

Included in these tables are the levels of each constituent found in Beverly Hills' water supply, how it compares with the allowable state and federal limits, and the constituent's likely origin. Only the constituents that are found in Beverly Hills' water supply that are above the state detection limit for reporting are listed in the tables.

You will find two tables, one for each of the following water sources:

- Metropolitan Treated Surface Water
- Beverly Hills Distribution System

By reading the tables on pages 16-20 from left to right, you will learn the quantity of a constituent found in water and how that compares with the allowable state and federal limits. You will also see the measured range and average of the constituent and where it likely originated. The questions and answers on this and the following page lettered **A** through **I** will explain the important elements of the tables.

Jensen Filtration Plant Courtesy: Metropolitan Water District of Southern California

## Readers' Guide to the Water Quality Tables

#### A Where does Beverly Hills get its water?

The City's Reverse Osmosis Treatment Plant has been offline since 2016 for operational improvements to ensure continued reliable drinking water for the future. As a result, 100 percent of your water supply is being provided by Metropolitan. Metropolitan imports water from Northern California via the State Water Project, and from the Colorado River via the Colorado River Aqueduct. The table shows the percentage of the total water delivered by Metropolitan that is from the State Water Project. The remainder is from the Colorado River. The second table lists the water quality standards for Beverly Hill's water distribution system.

#### **B** What is in my drinking water?

Your tap water may contain different types of chemicals (organic and inorganic), microscopic organisms (e.g., bacteria, algae, protozoa, and viruses) and radioactive materials (radionuclides), many of which are naturallyoccurring. Health agencies require monitoring for these constituents because at certain levels they could result in short- and long-term health risks. The column marked "Parameter" lists the constituents found in the water Beverly Hills delivers.

#### **C** How are constituents reported?

"Units" describe how a constituent is reported. Usually constituent levels are measured in extremely tiny quantities such as parts per million (ppm), parts per billion (ppb) and in some cases, parts per trillion (ppt). Even small concentrations of certain constituents can be a health concern. That is why regulatory standards are set at very low levels for certain constituents.

## **D** What are the maximum allowed levels for constituents in drinking water?

Regulatory agencies have maximum contaminant levels (MCLs) for constituents so that drinking water is safe and looks, tastes and smells good. A few constituents have the letters "TT" (treatment technique) in the MCL column because they do not have a numerical MCL. Instead, they have certain treatment requirements that have to be met to reduce their levels in drinking water. One of the constituents, total chlorine residual, has an MRDL (maximum residual disinfectant level) instead of an MCL. The MRDL is the level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap. While disinfectants are necessary to kill harmful microbes, drinking water regulations protect against too much disinfectant being added. Another constituent, turbidity, has a requirement that 95 percent of the measurements taken must be below a certain number. Turbidity is a measure of the cloudiness of the water. Metropolitan monitors turbidity because it is a good indicator of the effectiveness of our filtration system.

#### B Why are some of the constituents listed in the section labeled "Primary Standards" and others in the "Secondary Standards" section?

Constituents that are grouped in the "Primary Standards" section may be unhealthy at certain levels. In general, no health hazard is reasonably expected to occur when levels of a constituent are below a primary MCL. Constituents that are grouped under the "Secondary Standards" section can affect the appearance, taste and smell of water, but do not affect the safety of the water unless they also have a primary standard. Some constituents (e.g., aluminum) have two different MCLs, one for health-related impacts, and another for non-health-related impacts.

#### **F** What are Public Health Goals (PHGs) and Maximum Contaminant Level Goals (MCLGs)?

PHGs and MCLGs are targets or goals set by regulatory agencies for the water industry. They define a constituent level in water that do not pose any known or expected risk to health. Often, it is not possible to remove or reduce constituents to the level of PHGs and MCLGs because it is technologically impossible or the cost for treatment is so expensive that it would make tap water unaffordable. That is why PHGs and MCLGs are considered goals to work toward, and not realistic standards that can be enforced. Similar goals exist for Maximum Residual Disinfectant Level Goals (MRDLG).

## Readers' Guide to the Water Quality Tables



# G How do I know how much of a constituent is in my water and if it is at a level that is safe?

With a few exceptions, regulatory requirements are considered satisfied if the average amount of a constituent found in tap water over the course of a year is no greater than the MCL. Some constituents do have special rules described in the footnotes to the water quality tables. These constituents do not have a numerical MCL, but instead a required Treatment Technique that—when satisfied—is listed in the Treatment Plant Effluent (Column "H" of the Imported Water From Metropolitan table). The highest and very lowest levels measured over a year are shown in the range. Requirements for safety, appearance, taste and smell are based on the average levels recorded and not the range.

Water agencies have specific procedures to follow if a constituent is found at levels higher than the MCL and considered a potential threat to public health. Information is shared immediately with the regulatory agencies. The regulatory agencies will determine when and how this information is shared with the public.

## H What are the testing results for the water monitored?

The monitoring results for the two Metropolitan water treatment plants (Weymouth and Jensen) are listed as well as the monitoring results for the City's water distribution system and lead and copper samplings from residential taps.

## How do constituents get into the water supply?

The most likely source for each constituent is listed in the last column of the table. Some constituents are natural and come from the environment, others come from cities and farms, and some result from the water disinfection process itself. Some chemicals have found their way into California's water supplies, making water treatment more difficult. Certain industrial processes—like dry cleaning, fireworks and rocket fuel manufacturing—have left constituents in the environment, as has the use of certain fertilizers and pesticides. Many of these chemicals have since been banned from use.

Penstocks leading down to Devil Canyon Powerplant Courtesy: California Department of Water Resources

**3EVERLY HILLS** | 2018 Annual Water Quality Report

### Glossary

## **Quality Standards**

#### **Primary Standards**

Mandatory health-related standards that may cause health problems in drinking water. MCLs and MRDLs are listed for contaminants that affect health along with their monitoring, reporting, and water treatment requirements.

#### **Secondary Standards**

Aesthetic standards (non health-related) that could cause odor, taste, or appearance problems in drinking water.

#### **Unregulated Contaminants**

Information about contaminants that are monitored, but are not currently regulated by state and federal health agencies.

## **Terms & Abbreviations**

#### Constituents

Components or elements found in drinking water.

#### Locational Running Annual Average (LRAA)

The highest LRAA is the highest of all Locational Running Annual Averages calculated as average of all samples collected within a 12-month period.

#### Maximum Contaminant Level (MCL)

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

#### Maximum Contaminant Level Goal (MCLG)

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.

#### Maximum Residual Disinfectant Level (MRDL)

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.

#### Maximum Residual Disinfectant Level Goal (MRDLG)

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.

#### **Public Health Goal (PHG)**

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 Environmental Protection Agency (Cal/EPA).

#### **Primary Drinking Water Standard (PDWS)**

MCLs, MRDLs and treatment techniques (TTs) for contaminants that affect health, along with their monitoring and reporting requirements.

#### Range

Results based on minimum and maximum values; range and average values are the same for samples collected once or twice annually.

#### **Regulatory Action Level (AL)**

The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

#### **Running Annual Average (RAA)**

The highest RAA is the highest of all Running Annual Averages calculated as average of all samples collected within a 12-month period.

#### **Treatment Technique (TT)**

A required process intended to reduce the level of contaminants in drinking water that are difficult and sometimes impossible to measure directly. Use this glossary to understand the terms, abbreviations, quality standards, and measurements used in the data tables.



### Glossary

ΑI

Use this glossary to understand the terms, abbreviations, quality standards, and measurements used in the data table.

### **Additional Abbreviations**

- Aggressiveness Index
- CaCO3 = Calcium Carbonate
- CFU = Colony-Forming Units
- DLR = Detection Limits for Purposes of Reporting
- NA = Not Applicable
- ND = Not Detected

second

Parts Per

Trillion =

1 second in 32,000 years

- NL = Notification Level to SWRCB
- SWRCB = State Water Resources Control Board
- TON = Threshold Odor Number
- SI = Saturation Index (Langelier)

Parts Pei

1 second in 32,000,000 years

## How are the detection levels we measure equivalent to time?

Parts Per Billion =

1 second in 32 years

vears

32,

### Measurements

Beverly Hills conducts extensive sampling and testing to ensure your water meets all water quality standards. In 2018, over 113 contaminants were evaluated at various sampling points throughout the City's water system, all of which were below state and federal maximum allowable levels. Most contaminants are measured in:

- Million fibers per liter (MFL)
- Parts per million (ppm) or milligrams per liter (mg/L)
- Parts per billion (ppb) or micrograms per liter (μg/L)
- Parts per trillion (ppt) or nanograms per liter (ng/L)
- Parts per quadrillion (ppq) or picograms per liter
- PicoCuries per liter (pCi/L) A measurement of radioactivity in water.
- MicroSiemen per centimeter (μS/cm) or Micromho per centimeter (μmho/cm)
- Nephelometric Turbidity Units (NTU)—A measurement of the clarity of water. Turbidity in excess of 5 NTU is noticeable to the average person.



## 2018 Water Tables

Weymouth Water Treatment Plant | Courtesy: Metropolitan Water District of Southern California

## Imported Water From Metropolitan Water District

	B	C		F		G							
	Parameter	Units	State (Federal)	PHG	State DLR (RL)	Range	Treatment Plant Effluent ‡		Major Sources in				
			MCL			Average	Jensen Plant	Weymouth Plant	Drinking Water				
-	Percent State Water Project	%	NA	NA	NA	Range Average	100	0-100	NA				
					-Mandatory Health-Related Standards								
	CLARITY												
	Combined Filter Effluent (CFE) Turbidity(a)	NTU %	TT	NA	NA	Highest %≤0.3	0.06	0.06	Soil runoff				
	MICROBIOLOGICAL (b)												
	Total Coliform Bacteria (C)	% Positive Monthly Samples	5.0 (TT)	MCLG = 0	NA	Range Average	NA	NA	Naturally present in the environment				
	Escherichia coli (E. coli) (c, d)	Number	1 (TT)	MCLG = 0	NA	Number of Positive Samples	NA	NA	Human and animal fecal waste				
-	Heterotrophic Plate Count (HPC) Bacteria (e)	CFU/mL	TT	NA	(1)	Range Median	ND	ND-1 ND	Naturally present in the environment				
	Cryptosporidium	oocysts/200 L	TT	MCLG = 0	(1)	Range Average	ND	ND	Human and animal fecal waste				
	Giardia (f)	cysts/200 L	тт	MCLG = 0	(1)	Range Average	ND	ND	Human and animal fecal waste				
	INORGANIC CHEMICALS												
	Aluminum	ppb	1,000	600	50	Range	ND-75	ND-220	Residue from water treatment process; natural deposits				
	,	444	2,000			Highest RAA	ND	105	erosion				
	Barium	ppb	1,000			Range	ND	118	Oil and metal refineries discharge; natural deposits				
						Average			erosion				
	Fluoride (k)		2.0	1	0.1	Range	0.4-0.8	0.6–0.9	Erosion of natural deposits; water additive that promotes strong teeth; discharge from				
		ppm	2.0	1	0.1	Average	0.7	0.7	fertilizer and aluminum factories				
			10	10		Range	0.5	ND	Runoff and leaching from fertilizer use; septic tank and				
	Nitrate (as Nitrogen)	ppm	10		0.4	Average	0.5	ND	sewage; natural deposits erosion				

## Imported Water From Metropolitan Water District (cont.)

B		C	D	F		G							
	Parameter	Units	State (Federal)	PHG	State	Range	Treatment Plant Effluent ‡		Major Sources in				
			MCL	-	DLR (RL)	Average	Jensen Plant	Weymouth Plant	Drinking Water				
	RADIOLOGICALS (l)												
	Gross Alpha Particle Activity	pCi/L	15	MCLG = 0	3	Range Average	ND-3 ND	ND	Erosion of natural deposits				
	Uranium	pCi/L	20	0.43	1	Range	ND-1	ND	Erosion of natural deposits				
	DISINFECTION BYPRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BYPRODUCT PRECURSORS (m)												
	DISINFECTION BYPRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BYPRODUCT PRECURSORS (M)												
	Total Trihalomethanes (TTHM) (Plant Core	ppb	80	NA	1.0	Range	11–28	21-30	Byproduct of drinking water				
	Locations and Distribution System)					Highest LRAA	23	34	chlorination				
	Sum of Five Haloacetic Acids (HAA5) (Plant Core	ppb	60 MRDL = 4.0	NA MRDL = 4.0	1.0	Range	1.5–5.0	1.8–9.5	Byproduct of drinking water				
	Locations and Distribution System)	FF-				Highest LRAA	6.0	16	chlorination				
	Total Chlorine Residual	ppm				Range Highest RAA			Drinking water disinfectant added for treatment				
		ppb	10	0.1	1.0	Range	ND-6.4	ND-10	Byproduct of drinking water				
	Bromate (n)					Highest RAA	5.2	5.0	ozonation				
	Total Organic Carbon	ppm	тт	NA	0.30	Range	2.0-2.6	2.1-2.8	Various natural and man- made sources; TOC is a				
	(TOC)	ррш		NA	0.50	Highest RAA	2.6	2.4	precursor for the formation of disinfection byproducts				
	SECONDARY STANDARDS—Aesthetic Standards												
	Aluminum (o)	nah	200	600	50	Range	ND-75	ND-220	Residue from water treatment process; natural deposits				
	Aluminum (0)	ppb	200		50	Highest RAA	ND	105	erosion				
	Chloride	ppm	500	NA	(2)	Range	54–57	96–97	Runoff/leaching from natural				
-		r r				Average	56	96	deposits; seawater influence				
	Color	Color Units	15	NA	(1)	Range	ND-1	ND-1	Naturally-occurring organic				
						Average	ND	ND	materials				
	Odor Threshold (p)	TON	3	NA	1	Range Average	<u>1-4</u> 2	3	Naturally-occurring organic materials				
	Specific Conductance	μS/cm	1 600	ΝΔ	NA	Range	428-444	897-1,010	Substances that form ions in				
			1,600	NA	NA	Average	436	954	water; seawater influence				
	Sulfate	ppm	500	NA	0.5	Range	43-46	190-236	Runoff/leaching from natural				
		ррш	500		0.5	Average	44	213	deposits; industrial wastes				
	Total Dissolved Solids	ppm	1,000	NA	(2)	Range	239–244	553-639	Runoff/leaching from natural				
	(TDS) (q)		,		、-/	Average	242	596	deposits				

## Imported Water From Metropolitan Water District

		_							
B		C		F		G			
	Demonstern	Units	State	PHG	State	Range		ent Plant Jent ‡	Major Sources in
	Parameter	Units	(Federal) MCL	PHU	DLR (RL)	Average	Jensen Plant	Weymouth Plant	Drinking Water
	OTHER MEASU	RES	۲						
ſ	GENERAL MINERALS	:							
_								1	
	Alkalinity (as CaCO₃)	ppm	NA	NA	(1)	Range	68–76	107-117	Runoff/leaching of natural deposits; carbonate, bicarbonate, hydroxide,
						Average	72	112	and occasionally borate, silicate, and phosphate
	Calcium	ppm	NA	NA	(0.1)	Range	19–21	57-69	Runoff/leaching from natural
	Calcium	ppin		ЦА	(0.1)	Average	20	63	deposits
	Hardness (as CaCO <sub>3</sub> )	ppm	NA	NA	(1)	Range	84–94	233-274	Runoff/leaching from natural deposits; sum of polyvalentcations,
		FF			(-/	Average	89	254	generally magnesium and calcium present in the water
	Magnesium	ppm	NA	NA	(0.01)	Range	9.5–9.9	23–26	Runoff/leaching from natural
	Magnesium	ppin		nA.	(0.01)	Average	9.7	24	deposits
	Potassium	222	NA	NA	(0.2)	Range	2.4–2.5	4.4-5.0	Salt present in the water;
	Fotassium	ppm	NA	NA	(0.2)	Average	2.4	4.7	naturally-occurring
	Cadium		NA	NA	(1)	Range	45-46	94-103	Salt present in the water;
	Sodium	ppm	NA	NA	(1)	Average	46	98	naturally-occurring
	UNREGULATED CON	TAMINANTS				Danage		1	
	Boron	ppb	NL = 1,000	NA	100	Range Average	140	130	Runoff/leaching from natural deposits; industrial wastes
	MISCELLANEOUS (	r)							
	Calcium Carbonate					Range	1.0-1.9	0.9-9.1	Elemental balance in water;
	Precipitation Potential	ppm	NA	NA	NA				affected by temperature,
	(CCPP) (as CaCO <sub>3</sub> ) (s)					Average	1.4	5.2	other factors
	Chlorate	ppb	NL = 800	NA	20	Range	29	32	Byproduct of drinking water chlorination; industrial
	Cinorate	ррр	NL - 800	NA	20	Average	29	52	processes
	Corrosivity (as	A1	NA	NA		Range	12.0	12.2-12.5	Elemental balance in water; affected by temperature,
	Aggressiveness Index) (t)	AI	NA	NA	NA	Average	12.0	12.4	other factors
	Corrosivity (as Saturation	ci				Range	0.26-0.28	0.43-0.57	Elemental balance in water;
	Index) (u)	SI	NA	NA	NA	Average	0.27	0.50	affected by temperature, other factors
-	N-Nitrosodimethylamine (NDMA)	ppt	NL = 10	3	(2.0)	Range	ND	2.2	Byproduct of drinking water chloramination; industrial processes
					N	Range	8.4-8.5	8.1-8.2	
	рН	pH Units	NA	NA	NA	Average	8.5	8.1	NA
	Sum of Five Haloacetic					Range	2.6-3.9	1.9–5.5	Byproduct of drinking water
	Acids (HAA5) (v)	ppb	60	NA	1.0	Average	3.2	3.6	chlorination
	Total Dissolved Solids					Range	236-254	283-650	Runoff/leaching from natural
	(TDS) (w)	ppm	1,000	NA	(2)	Average	243	514	deposits
	Total Trihalomethanes					Range	7.7–46	12-58	Byproduct of drinking water
	(TTHM) (v)	ppb	80	NA	1.0	Average	15	23	chlorination
						2	ı		

В	C		F		G	H						
Parameter	Units	State (Federal) MCL	PHG	State DLR (RL)	Range Average	Level Detected	Major Sources in Drinking Water					
PRIMARY STAI	NDARDS-	Mandate	ory Heal	th-Relate	ed Stand	ards						
MICROBIOLOGICAL	MICROBIOLOGICAL											
Total Coliform Bacteria	% Positive Monthly Samples	5.0 (TT)	MCLG = 0	NA	Range Average	0	Naturally present in the environment					
Escherichia coli (E. coli)	Number	1 (TT)	MCLG = 0	NA	Number of Positive Samples	0	Human and animal fecal waste					
INORGANIC CHEMICALS												
				0.1	Range	0.6-0.8	Erosion of natural deposits; water additive t					
Fluoride	ppm	2.0	1		Average	0.7	promotes strong teeth; discharge from and aluminum factories					
Nitrite (as Nitrogen)	ppm	1	1	0.4	Range	ND-0.203	Runoff and leaching from fertilizer use; sept and sewage; natural deposits erosion					
Average 0.010 and sewage; natural deposits erosion												
Total Trihalomethanes (TTHM)	ppb	80	NA	1.0	Range	17.3-43.2	Byproduct of drinking water chlorination					
					Highest LRAA	30.7						
Sum of Five Haloacetic	ppb	60	NA	1.0	Range	1.4-22.2	Byproduct of drinking water chlorination					
Acids (HAA5)	662			1.0	Highest LRAA	14	byproduct of drinking water citorination					
Total Chlorine Residual	ppm	MRDL = 4.0	MRDL = 4.0	(0.05)	Range	0.5–2.7	Drinking water disinfectant added for treatn					
SECONDARY S	TANDADD	S_Act	notic Sta	ndards	Highest RAA	1.7						
SECONDARY S				nuarus	Range	ND-3						
Color	Color Units	15	NA	(1)	Average	ND 3	Naturally-occurring organic materials					
Odor Threshold	TON	3	NA	1	Range	ND	Naturally-occurring organic materials					
					Average	ND ND-0.31						
Turbidity	NTU	5	NA	0.1	Range Average	ND-0.31	Soil runoff					

	Aggressiveness index
AL	Action Level
Average	Result based on arithmetic mean
CaCO3	Calcium Carbonate
ССРР	Calcium Carbonate Precipitation Potential
CFE	Combined Filter Effluent
CFU	Colony-Forming Units
DLR	Detection Limits for Purposes of Reporting
HAA5	Sum of five haloacetic acids
HPC	Heterotrophic Plate Count
LRAA	Locational Running Annual Average; highest LRAA
	is the highest of all Locational Running Annual Averages
	calculated as an average of all samples collected within
	a 12-month period

MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MFL	Million Fibers per Liter
MRDL	Maximum Residual Disinfectant Level
MRDLG	Maximum Residual Disinfectant Level Goal
NA	Not Applicable
ND	Not Detected at or above DLR or RL
NL	Notification Level to SWRCB
NTU	Nephelometric Turbidity Units
pCi/L	picoCuries per Liter
PHG	Public Health Goal
ppb	parts per billion or micrograms per liter (μg/L)
ppm	parts per million or milligrams per liter (mg/L)
ppq	parts per quadrillion or picograms per liter (pg/L)

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	Lead and Copper Action Levels at Residential Taps												
	B				C		F		H				
(	A	Parameter	Number of Samples collected	Sample Date	Units	Action Level (AL)	Health Goal	90th Percentile Value	Sites Exceeding AL No. of Sites	AL Violations?	Typical Source of Contaminant		
		Copper (af)	32	2017	ppb	1300	300	156	0	NO	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives		
		Lead (af)	32	2017	ppb	15	0.2	4.54	0	NO	Internal corrosion of household plumbing systems; discharges from industrial manufacturers; errosion of natural deposits		

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. In 2016, the City of Beverly Hills Water Utilities Bureau and City of Beverly Hills Unified School District voluntarily sampled for lead at all 5 public schools. In 2017, 32 residences were sampled for lead and copper at the tap. In 2017 and 2018, no K-12 public school submitted a request to sample for lead as part of Assembly Bill 746.

- (a) Metropolitan monitors turbidity at the CFE locations using continuous and grab samples. Turbidity, a measure of cloudiness of the water, is an indicator of treatment performance. Turbidity was in compliance with the TT primary drinking water standard and the secondary drinking water standard of less than 5 NTU.
- (b) Per the State's Surface Water Treatment Rule, treatment techniques that remove or inactivate Giardia cysts will also remove HPCs, Legionella, and viruses. Legionella and virus monitoring is not required.
- (c) Compliance is based on monthly samples from treatment plant effluents and the distribution system.
- (d) The MCL for E. coli is based on routine and repeat samples that are total coliform-positive, and either is E. coli positive or the system fails to take repeat samples following an E. coli-positive routine sample, or the system fails to analyze a total coliform-positive repeat sample for E. coli.
- (e) All distribution system samples had detectable total chlorine residuals, so no HPC was required. Metropolitan monitors HPCs to ensure treatment process efficacy.
- (f) A single Giardia cyst was detected in one sample from the filter effluent at the Skinner water treatment plant, prior to the treated water reservoir and addition of final disinfectant. The monitoring method detects all cysts, regardless of whether they are alive or dead. The plant met all operational and regulatory requirements throughout the year, including at the time of this single sampling event, and there was no regulatory violation.

#### Notes

- (g) 1,2,3-Trichloropropane (TCP) was monitored quarterly in Metropolitan's source and treated waters for the State initial monitoring requirement promulgated in January 2018. Metropolitan will begin annual monitorin in 2019.
- (h) Metropolitan uses acrylamide for water treatment processes and was in compliance with the treatment technique requirements regarding its use when treating drinking water. Metropolitan does not use any epichlorohydrins.
- (i) Data reported once every nine-year compliance cycle until the next samples are collected. Current monitoring results are from 2011.
- (j) As a wholesaler, Metropolitan has no retail customers and is not required to collect samples at consumers' taps. However, compliance monitoring under Title 22 is required at plant effluents.
- (k) Metropolitan was in compliance with all provisions of the State's fluoridation system requirements.
- Data are from samples collected in 2017. Metropolitan's required triennial monitoring (2020–2022) will be performed in 2020.
- (m) Compliance with the state and federal MCLs is based on RAA or LRAA, as appropriate. Plant core locations for TTHM and HAA5 are service connections specific to each of the treatment plant effluents.
- (n) Compliance with the state and federal bromate MCL is based on RAA. No MCL exceedance occurred in the Mills or Weymouth treatment plant effluents.

- (o) Compliance with the State MCL for aluminum is based on RAA. No secondary standard MCL exceedance occurred in the Diemer or Weymouth treatment plant effluents.
- (p) Compliance with odor threshold secondary MCL is based on RAA. Treatment plants begin quarterly monitoring if annual monitoring results are above 3.
- (q) Metropolitan's TDS compliance data are based on flow-weighted monthly composite samples collected twice per year (April and October). The 12-month statistical summary of flow-weighted data is reported in the "Other Parameters" section under "Miscellaneous."
- (r) Data are from voluntary monitoring of constituents and are provided for informational purposes.
- (s) Positive CCPP = non-corrosive; tendency to precipitate and/or deposit scale on pipes. Negative CCPP = corrosive; tendency to dissolve calcium carbonate. Reference: Standard Methods (SM2330).
- (t) Al ≥ 12.0 = Non-aggressive water; Al 10.0-11.9 = Moderately aggressive water; Al ≤ 10.0 = Highly aggressive water. Reference: ANSI/AWWA Standard C400-93 (R98).
- Positive SI = non-corrosive; tendency to precipitate and/or deposit scale on pipes. Negative SI = corrosive; tendency to dissolve calcium carbonate. Reference: Standard Methods (SM2330).
- (v) HAA5 and TTHM noncompliance samples collected at treatment plant effluents.
- (w) Statistical summary represents 12 months of flow-weighted data and values may be different than the TDS reported to meet compliance with secondary drinking water regulations.

## Water Efficiency, A Beverly Hills Way of Life

A series of cold-weather storms have brought a rare, wet winter to California. While the state's reservoirs are presently full and snowpack is ample, we never know what tomorrow will bring. This is why we must all work together to make water efficiency a Beverly Hills way of life. The City is doing its part to conserve water by practicing efficient water measures throughout the City's offices and public venues. Join us in taking a greater role in water stewardship and conservation by practicing these easy ways you can save water in and outside your home.

#### Water Saving Tips: Indoors

- Check for leaks around the house, especially running toilets. One running toilet can waste
   200 gallons an hour!
- Take five minute (or less) showers.
- Use a low-flow showerhead and/or install aerators in your sinks. The City offers these devices at no cost by calling 310.285.2467.
- Do not run water when brushing your teeth, shaving and washing dishes by hand.
- Wash only full loads of laundry and dishes.
- Upgrade to high-efficiency toilets, clothes washers and dishwashers. Check out rebates for eligible appliances by visiting www.socalwatersmart.com.

#### Water Saving Tips: Outdoors

- Set your sprinkler timer to water 2 days a week in the Fall, Winter and Spring and 3 days a week in the Summer (see our Outdoor Watering Guidelines).
- Check your sprinkler system for broken or clogged sprinkler heads. To minimize water waste, check for overspray.
- Consider drip irrigation for your trees, shrubs and flowers.
- Use a broom, not a hose, to clean driveways and sidewalks.
- Install a weather-based irrigation controller (WBIC), which will automatically adjust the watering schedule with the weather.
- Put a back-up battery in your sprinkler controller to save your settings during power outages.
- Use at least 3 inches of mulch around plants and trees to retain moisture and keep the soil cool.
- Consider replacing grass lawn areas with drought tolerant and native plants that require less water (rebates may be available).
- Use a pool cover to reduce evaporation. You may also save money on heating bills and chemicals.
- Keep an eye on pool and fountain auto fills so they only fill when necessary.

#### **Outdoor Watering Guidelines**

While California's Emergency Drought is over, we encourage all residents to continue using water efficiently, which is why "Stage C" of Beverly Hill's watering regulations is still in place:

## From October to May, outdoor watering is restricted to two (2) days per week.

- North of Santa Monica Boulevard Monday & Friday
- South of Santa Monica Boulevard
  Tuesday & Saturday

## From June to September, outdoor watering is restricted to three (3) days per week.

- North of Santa Monica Boulevard Monday, Wednesday & Friday
- South of Santa Monica Boulevard Tuesday, Thursday & Saturday

#### **Ongoing Regulations**

- 1. Only water between the hours of 5 pm and 9 am.
- 2. Don't irrigate after a measurable rainfall.
- 3. Don't allow excessive water runoff due to sprinkler overspray or malfunction.
- 4. Repair leaks immediately.



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# Do you know how much water goes into your landscape?

A typical, single family home uses twothirds of their total water consumption to water their outdoor landscape. In an effort to help our customers use water more efficiently and reduce their water bills, the City offers free landscape water evaluations. The evaluation focuses on the most efficient way to water your landscape and offers other helpful information, including the pros and cons of drip irrigation versus overhead sprinklers. Information on beautiful water wise plants will also be available for those considering upgrading to a California Friendly landscape.

To sign up, please contact Debby Figoni at 310.285.2467 or via email: AskPW@beverlyhills.org.

### **Rebates, Tips, Questions**

Rebates are available for upgrading to high-efficiency appliances including toilets, clothes washers, weather based irrigation controllers and more. For a list of eligible appliances and details on the rebates, visit **www.socalwatersmart.com.** 

For more water-saving tips and resources, visit www.epa.gov/watersense and www.BHSaves.org. You can also contact Debby Figoni at **310.285.2467** or **AskPW@beverlyhills.org**.

## **Tracking** Usage. **Discovering** Leaks.

Did you know that one leaky toilet can waste up to 200 gallons of water an hour? And, a broken sprinkler pipe can waste even more? Many water leaks are not visible and can go undetected for months. Not only is this wasteful, it adds unnecessary costs to your utility bill.

The City of Beverly Hills has taken a proactive approach to help our customers detect continuous water flow issues soon after they start with an online program called Water Tracker. Proven to save our customers water, time and money, this free City program displays daily water use and will notify you of abnormally high daily usage and/or continuous water flow issues.

#### Signing up for the Water Tracker program is easy:

- 1. Visit https://water.beverlyhills.org and click on "Sign Up Here." Enter your email address and hit "submit." You will receive a confirmation email with a link to activate vour account.
- 2. Sign into Water Tracker using your login email address and newly created password. Enter your 6-digit customer number on your water bill to link up your account. Note: If your customer number is less than 6 digits, add "0" to the beginning of your customer number.
- 3. Re-enter your login and password to finish setting up your account. Then, click "My Water Use" to start exploring water usage statics by year, month, week, day or hour (on left side of screen). You can also view your water usage summary per billing cycle on the tab labeled "Consumption Summary."



One of the most valuable features of this program are the automated alerts of potential leaks and excessive water use. You can set up your notifications under "Account Settings," where you can select your preferred options (frequency, email vs. text notifications, etc.) Under "Water Settings," you can set your "usage budget" and other parameters such as "Continuous Flow Threshold," which should be set at "0" to be notified of potential leaks.

In addition to this valuable tool, a simple visual inspection around your home is an easy way to spot leaks. Taking 10 minutes to check your home for leaks today could save hundreds to thousands of gallons of water.

#### **Toilets**

Did you know that one leaky toilet can waste up to 200 gallons of water an hour?

To see if your toilet is running, put a few drops of food coloring in the toilet tank. Don't flush and wait 15 minutes. If the colored water appears in the bowl, there is a leak. The issue may be:

- Flapper: Ensure it is sealing properly. New flappers are inexpensive and easy to fix.
- Overflow Tube: Water should be a half • inch below the top of the tube.
- Lift Chain: It should not catch on • anything.
- Flush Handle: Make sure it functions properly.

Note: Rebates for 1.1 gallon per flush toilets are available by visiting: www.socalwatersmart.com.

#### Faucets, Showerheads and Bathtubs

Look for dripping faucets and showerheads. Leaky faucets and showerheads are often caused by worn out washers. Replacing worn washers in a faucet with a slow steady drip saves 350 gallons per month, and 2,000 gallons a month if the leak is a small stream.

Jason Dyogi



About two o'clock in the morning, when everyone is fast asleep, field operators from the Public Works Department, drive to all the reservoirs and 21 stations located throughout Beverly Hills to sample water at every point of the City's distribution system. The samples are then submitted to the laboratory to test for more than 113 constituents in the water delivered to Beverly Hills residents.

The laboratory results and water quality data are then analyzed by Water Quality Specialist Jason Dyogi. But that is just the beginning. Jason also monitors data from the City's water treatment plant, makes recommendations to maintain the highest quality water, and proposes ways to improve the City's water infrastructure. He stays abreast of new laws impacting water quality, develops contingency plans and ensures the City has the appropriate certified laboratories to test for emerging contaminants. He is also responsible for all regulatory compliance reports, which are filed monthly, quarterly and annually, such as this Consumer Confidence Report (CCR), as well as the State Annual Drinking Water Program Performance Report and the Public Health Goals Report to City Council to receive public comment and to accept any recommendations from the report.

Jason Dyogi joined the City of Beverly Hills Water Quality team in November 2018 after serving as Water Quality Analyst for the City of Santa Monica and Golden State Water Company, one of the largest privately owned water companies in California, totaling over 10 years of water quality experience. He holds a Bachelor of Science degree in Biology as well as several specialized drinking water certifications with the State of California and the American Water Works Association. In his role as Water Quality Specialist, Jason also spends time speaking to Beverly Hills residents and answering their questions about water quality. Following are some of the most commonly asked questions he receives.

#### Is my tap water safe to drink?

Yes, your tap water is safe to drink. The United States enjoys one of the best supplies of drinking water in the world. Most people don't realize that their tap water is regulated by the U.S. EPA under the Safe Drinking Water Act. Under this Act, the EPA requires water utility providers, such as the City of Beverly Hills, to regularly test the water from various locations throughout the City to ensure it does not exceed the maximum levels for a variety of different contaminants. In addition to ongoing monitoring and rigorous testing, our City is required to provide residents with an annual Consumer Confidence Report, which includes a detailed table about the quality of your water such as the ones found in this report.

## How does your water stack up against bottled water?

Bottled water is not necessarily any safer to drink than your tap water. In fact, much of bottled water comes from municipal water systems. Bottled water is considered a packaged product that is regulated by Food and Drug Administration (FDA). Even though the bottle water industries have to adhere to quality standards, the FDA's water quality testing requirements are far less stringent than the standards we meet. Monitoring is also less frequent than your tap water. Furthermore, the FDA does not require water bottling companies to share their test results to consumers like the results we provide to our customers. Bottled water also creates a tremendous amount of plastic, which leaves a big environmental footprint. Then there is the consideration of cost. The price you pay for a gallon of water at your tap is considerably less than the price of a gallon of bottled water.

## Water Quality At Its Best

#### Why do I see a white residue at the bottom of my tea kettle or spotting on my glassware?

This residue is a harmless buildup of naturally occurring minerals in water primarily calcium and magnesium, the most common minerals that make water "hard." To remove the deposits inside your tea kettle, boil equal parts white vinegar and water. Once a month, fill the reservoir with equal parts white vinegar and water, and turn on the coffeemaker.

#### Is "hard water" safe to drink?

Yes, your tap water is safe to drink. These minerals do not pose any health risks. In fact, the National Research Council (National Academy of Sciences) states that hard drinking water generally contributes a small amount toward total calcium and magnesium human dietary needs. Since hard water contains essential minerals, it is often the preferred drinking water over distilled or "soft" water. Not only because of the health benefits, but also the flavor. The City of Beverly Hills conducts various tests throughout the system to answer safe lavels.

to ensure safe levels of hardness in your water.



## Your Dollars At Work



Learn more about what the City is doing to maintain and enhance your community infrastructure by reading our bi-monthly newsletter The Backbone. You can sign up to receive an email notification of the latest newsletter by visiting www.beverlyhills.org/enotice.



If you have any questions regarding our Capital Improvement Program (CIP) projects, please feel free to call Gil Borboa at 310.285.2467.

### We are proud of our stewardship of Beverly Hills' infrastructure and we put your dollars to work in the most efficient way to maintain our great City.

Securing new alternative water sources, improving our infrastructure and implementing new services comes at a cost. However, we continue to make strategic investments in our water and sewer infrastructure, striving to better leverage City resources, improve efficiencies, and reduce overall construction costs and time to maximize your dollars.

"We put your dollars to work to ensure we are able to meet your water needs today and far into the future," explains Assistant Director Gil Borboa. "As your Public Works Department, one of our top priorities is to ensure high quality water, a more resilient water system and longterm sustainability that protects health, safety and quality of life for all Beverly Hills residents and businesses. We are constantly reinvesting in our infrastructure, whether building new facilities to access new groundwater sources or replacing and reinvigorating the systems all our customers depend on every day."

Our Capital Improvement Program (CIP) projects exemplify our stewardship of Beverly Hills' infrastructure. Through these projects, we are modernizing and improving the reliability of our water system while pursuing alternative local sources of water supply including new groundwater sources. Leading these projects is a proposal to develop 1,700 net acre-feet per year (AFY) of new potable water supply in the La Brea Subarea of the Central Groundwater Basin, located at various sites south of the City near the I-10 freeway and La Cienega Boulevard. The major project components include:

- Constructing and equipping three new groundwater wells.
- Transporting groundwater to the treatment plant through a pipeline conveyance system, which includes the potential rehabilitation of an existing pipeline and the construction of a new pipeline from the intersection of La Cienega Boulevard and Olympic Boulevard to the Foothill Water Treatment Plant. Currently, this project is in planning and design. Construction of the conveyance piping system and one of the three groundwater wells is anticipated to be completed in FY 2020/2021.

Other water system upgrade projects in the works that will enhance the robustness of our water system include:

- Upgrades to the City's existing Reverse Osmosis Water Treatment Plant to address changing water quality conditions in the City's Hollywood Basin groundwater wells. Upgrades will include a pretreatment system with oxidation unit, sand separator, and chemical feed systems to continue to treat our groundwater supplies to meet stringent regulatory requirements. The water treatment plant upgrades are anticipated to be completed in first quarter 2021.
- Pump Station No. 8 Rehabilitation Project to replace aging mechanical pumping equipment, electrical, instrumentation controls, piping, and associated appurtenances at the existing pump station adjacent to Reservoir No. 7. Completion of construction is projected for Summer 2019.
- Various Distribution and Transmission Pipeline Upgrades and Improvements Project on Coldwater Canyon, Loma Linda, Loma Vista, and other areas within our water system. This project will replace about five miles of aging pipeline infrastructure to ensure a reliable conveyance system. Currently under design, construction on this project is projected to begin in 2020.
- Pump Station 4 and Sunset Reservoir Improvement Project to upgrade aging pump station piping and instrumentation, enhance chemical feed systems, and improve pump station operability is underway. Currently, the project is in design with construction anticipated to begin in FY 2020/2021.
- Integrated Water Resources Master Plan (IWRMP) to determine best available use of the City's water resources including water, wastewater, and storm water resources. This project will update the City's hydraulic models and develop a planning roadmap for the City to optimize the use of these limited water resources. Currently, the project is underway and completion of the master plan is anticipated in FY 2020/2021.

Our goal is to be innovative, proactive, and efficient. But Public Works can't do it alone. We encourage you to participate by letting us know what we can do better.

Together we can ensure a sustainable future for all Beverly Hills water customers.

**3EVERLY HILLS** | 2018 Annual Water Quality Report





This report contains important information about your drinking water. Please contact the City of Beverly Hills Public Works Department at 310.285.2467 for assistance in Spanish or Farsi.

Este informe contiene información importante sobre su agua potable. Favor de comunicarse con el Departamento de Obras Públicas de la ciudad de Beverly Hills al 310.285.2467 para obtener asistencia en español.

به طفال .است شما آشامیدنی آب مورد در مهم اطلاعات حاوی گنزارش این شماره به فارسی به کمک برای هیلز بورلی عمومی خدمات بخش کنید مراجعه 310.285.2467

If you have questions regarding this report or the quality of your water, please contact Public Works Customer Service.

Public Works Customer Service Call: **310.285.2467** Email: AskPW@beverlyhills.org

**Public Works Department** 345 Foothill Road, Beverly Hills, CA 90210

## **Get Involved**

Public involvement is fundamental to ensuring that we are meeting water supply demand, water quality goals and the highest customer service level. We welcome your feedback; please see below for ways you can be involved with the City of Beverly Hills:

- Let us know how we are doing.
- Sign up for the newsletters and alerts.
- Participate in conservation events.
- Attend commission and council meetings.

The Public Works Commission is an advisory group to the City Council that generally meets at 8:00 a.m. on the second Thursday of every month. For exact meeting dates and time, please contact the City Clerk at 310.285.2400.

For more information visit http://www.beverlyhills.org/