Beverly Hills

Partners in Environmental Protection

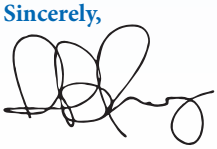
2017 Annual Water Quality Report

We are very pleased to share with you the 2017 Annual Drinking Water Quality Report that presents the high quality of your drinking water. This report contains 2016 water quality testing results, explanation of our local water supply, and additional water conservation information.

The City of Beverly Hills is continually working to ensure that all our customers have safe, reliable and high-quality water for years to come. That is why we are implementing the Water Enterprise Plan which focuses and strengthens our water supply portfolio. We are moving forward with increasing local supply for enhanced system resilience. Additionally, our customers and operations staff continues to respond proactively to conservation which enables the City to ensure the viability of our existing water supplies.

I am confident this report will not only illustrate the quality of our water, but our continued commitment to sustainability and delivery of this precious resource for the years to come.

Sincerely,



Trish Rhay
Assistant Director of Public Works

THE 2017 WATER QUALITY REPORT

Your Water Meets All Safe Drinking Water Standards

The technical and analytical water quality information presented in this report is required by State health regulations.

These regulations require water suppliers to inform customers where their water comes from, what is in their water, and any violation of standards that may have occurred.

For information or concerns about this report, or your water quality in general, please contact Trish Rhay, Assistant Director of Public Works-Infrastructure and Field Operations, at (310) 285-2467 You may also address your concerns at scheduled Public Works Commission 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. The Public Works Commission for 2016 includes residents Barry Pressman, Ron Shalowitz, Sandra Aronberg, Jeff Wolfe and Jerrold S. Felsenthal.

This report contains important information about your drinking water. Please share this information or have it translated.

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

این اطلاعیه شامل اطلاعات مهمی راجع به آب آشامیدنی است. اگر نمیتوانید این اطلاعات را بزبان انگلیسی

بخوانید لطفا از کسی که میتواند یاری بگیرید تا مطالب را برای شما به فارسی ترجمه کند.

BASIC INFORMATION ABOUT DRINKING WATER COMPONENTS

The sources of drinking water (both tap 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 activities.

Components that may be present in source water include:

- **Microbial components**, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildfires.
- **Inorganic components**, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining and farming.
- **Radioactive components**, that can be naturally occurring or be the result of oil and gas production or mining activities.
- **Pesticides and herbicides**, that may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.
- **Organic chemical components**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and can also come from gasoline stations, urban storm runoff, agricultural application and septic systems.
- The City uses **chloramines** to disinfect your water. The City is required to disinfect your water to prevent waterborne pathogens.
- Your drinking water also contains small amount of **fluoride ions**. This additive helps prevent tooth decays. The fluoride concentration in your water ranges from 0.6 to 1.2 mg/L.
- Your average **water hardness** is approximately 300 mg/L or 17.5 grains/gallon.

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and Division of Drinking Water (DDW) prescribe regulations that limit the amount of certain components in water provided by public water systems. DDW also establishes limits for the components in bottled water that must provide the same protection for public health.

ADDITIONAL CHARACTERISTICS OF OUR DRINKING WATER

- **Disinfection with Chloramines** – Your water is disinfected with 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.
- **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 can 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 specific equipment needs.

WATER & MONEY SAVING REBATES

Residential water consumers use more than 2.2 trillion gallons of water per year. That's half of the annual flow of the Colorado River, one of Southern California's primary sources of water.

In an effort to use water more efficiently, the City of Beverly Hills encourages all residents install water efficient devices, such as toilets, washing machines and weather based irrigation controllers. To find qualifying products, **www.socalwatersmart.com.**

SOURCES OF SUPPLY

The City of Beverly Hills water supply comes from the City's Reverse Osmosis Water Treatment Plant (10%) and the Metropolitan Water District (90%). The City's Reverse Osmosis Water Treatment Plant draws water from the City's four groundwater wells within the Hollywood Basin. This treated water is then blended with the Metropolitan Water District's (MWD) water from its Jensen and Weymouth surface water treatment plant which draws from the State Water Project and the Colorado River. These waters are stored throughout the City's reservoirs and steel tanks. In 2016, the City's Reverse Osmosis Treatment Plant was offline for operational improvements to ensure continued reliable drinking water for the future. In 2016, 100% of your water source was provided by MWD.

An assessment of the drinking water source(s) for the City of Beverly Hills was completed in July 2002. The source(s) are considered most vulnerable to the following activities associated with contaminants detected in the water supply: sewer collection systems, dry cleaners, parks, residential housing, historic railroad rights-of-way, automobile repair shops, parking lots, automobile gasoline stations and confirmed leaking underground tanks.

A copy of the complete assessment is available at the City of Beverly Hills, 345 Foothill Road, Beverly Hills, CA 90210. You may request a summary of the assessment be sent to you by contacting Trish Rhay, Assistant Director at (310) 285-2467.

ADDITIONAL INFORMATION

More information regarding drinking water quality can be found on the Internet. Some excellent websites are:

Metropolitan Water District of Southern California
www.mwdh2o.com

State Water Resources Control Board, Division of Drinking Water
www.waterboards.ca.gov/drinking_water/programs/index.sht

U.S. Environmental Protection Agency
www.epa.gov/safewater

Water Conservation Tips
www.bewaterwise.com

Fluoridation: Center for Disease Control
www.cdc.gov/OralHealth

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 constituents does not necessarily indicate that the water poses a health risk. More information about constituents and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at (800) 426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, the elderly and infants can be particularly at risk. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on ways to lessen the risk of infection by Cryptosporidium and other microbial components are also available from the hotline, (800) 426-4791.

Fluoridation: Fluoride occurs naturally in water and soil in varying amounts. The City of Beverly Hills and Metropolitan Water District (MWD) of Southern California adjust the natural fluoride concentration in the water by adding a small concentration of fluoridation 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. Fluoridating the water especially helps to prevent tooth decay in children. Because of the health benefits of fluoridating in drinking water, a 1997 Assembly Bill of the State of California has mandated all large system water suppliers begin fluoridating their water systems.

If you are concerned about fluoride in your drinking water, additional information is available from the Center of Disease Control Website: http://www.cdc.gov/OralHealth/.

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.

Lead: If present, elevated levels (above 15 µg/L) 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 can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at **www.epa.gov.** Additional information is available from the USEPA Safe Drinking Water Hotline at (800) 426-4791.

Arsenic: While your drinking water meets the U.S. Environmental Protection Agency (EPA) standard, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health impacts against the cost of removing arsenic from drinking water. The EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations, and is linked to other health impacts such as skin damage and circulatory problems.

2016 BEVERLY HILLS WATER QUALITY DATA FROM OUR MWD SOURCES

Parameter	Units	State or Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	Treatment Plant Effluent		Major Sources in Drinking Water
						Weymouth Plant	Jensen Plant	
Percent State					Range	0-100	100	
Project Water	%	NA	NA	NA	Average	13	100	
PRIMARY STANDARDS—Mandatory Health-Related Standards								
CLARITY								
Combined Filter	NTU	TT = 1			Highest	0.03	0.05	
Effluent Turbidity	%	TT (a)	NA	NA	% ≤ 0.3	100	100	Soil runoff
MICROBIOLOGICAL								
Total Coliform Bacteria (b)					Range	Distribution System-wide:	ND–0.3	
State Total Coliform Rule	%	5.0	(0)	NA	Average	Distribution System-wide:	ND	Naturally present in the environment
E. coli (Acute Total Coliform)								
State Total Coliform Rule	(c)	(c)	(0)	NA		Distribution System-wide:	ND	Human and animal fecal waste
Total Coliform Bacteria					Range	Distribution System-wide:	ND–0.3	
Federal Revised Total Coliform Rule	%	TT (d)	NA	NA	Average	Distribution System-wide:	0.1	Naturally present in the environment
E. coli								
Federal Revised Total Coliform Rule	(e)	(e)	MCLG = 0	NA		Distribution System-wide:	ND	Human and animal fecal waste
Heterotrophic Plate Count					Range	Distribution System-wide:	TT	
(HPC) (f)	CFU/mL	TT	NA	NA	Average	Distribution System-wide:	TT	Naturally present in the environment
	oocysts/				Range	ND	ND	
Cryptosporidium	200 L	TT	(0)	NA	Average	ND	ND	Human and animal fecal waste
	cysts/				Range	ND	ND	
Giardia	200 L	TT	(0)	NA	Average	ND	ND	Human and animal fecal waste
Semi-Volatile Organic Compounds (g)								
					Range	TT	TT	
Acrylamide	NA	TT	(0)	NA	Average	TT	TT	Water treatment chemical impurities
					Range	TT	TT	
Epichlorohydrin	NA	TT	(0)	NA	Average	TT	TT	Water treatment chemical impurities
INORGANIC CHEMICALS								
					Range	77-220	ND–130	Residue from water treatment process;
Aluminum	ppb	1,000	600	50	Highest RAA	159	100	natural deposits erosion
					Range	ND	3.1	Natural deposits erosion, glass and electronics
Arsenic	ppb	10	0.004	2	Average	ND	3.1	production wastes
					Range	ND	ND	Asbestos cement pipes internal corrosion;
Asbestos (h)	MFL	7	7	0.2	Average	ND	ND	natural deposits erosion
					Range	144	ND	Oil and metal refineries discharge;
Barium	ppb	1,000	2,000	100	Average	144	ND	natural deposits erosion
					Range	ND	ND	Runoff/leaching from natural deposits;
Chromium VI (i)	ppb	10	0.02	1	Average	ND	ND	discharge from industrial waste factories
					Range	ND	ND	Internal corrosion of household pipes;
Copper (j)	ppm	AL = 1.3	0.3	0.05	Average	ND	ND	natural deposits erosion
				Control Range		0.6–1.2	0.6–1.2	
				Optimal Fluoride Level		0.7	0.7	
					Range	0.6–1.0	0.6–0.8	Erosion of natural deposits;
Fluoride (k)	ppm	2.0	1	0.1	Average	0.7	0.7	water additive that promotes strong teeth
Treatment-related					Range	Distribution System-wide:	0.6–1.0	
					Range	ND	ND	House pipes internal corrosion;
Lead (j)	ppb	AL = 15	0.2	5	Average	ND	ND	erosion of natural deposits
					Range	ND	ND	Erosion of natural deposits; discharge from
Nickel	ppb	100	12	10	Average	ND	ND	metal factories
					Range	ND	0.6–0.9	Runoff and leaching from fertilizer use; septic tank
Nitrate (as Nitrogen)	ppm	10	10	0.4	Average	ND	0.8	and sewage; natural deposits erosion

					Range	ND	ND	Runoff and leaching from fertilizer use; septic tank
Nitrite (as Nitrogen)	ppm	1	1	0.4	Average	ND	ND	and sewage; natural deposits erosion
					Range	ND	ND	
Perchlorate (l)	ppb	6	1	4	Average	ND	ND	Industrial waste discharge
RADIOLOGICALS (m)								
Gross Alpha					Range	ND–4	ND–5	
Particle Activity	pCi/L	15	(0)	3	Average	ND	3	Erosion of natural deposits
Gross Beta					Range	4–6	ND–5	
Particle Activity	pCi/L	50 (n)	(0)	4	Average	5	ND	Decay of natural and man-made deposits
					Range	2–3	2–3	
Uranium	pCi/L	20	0.43	1	Average	3	2	Erosion of natural deposits
DISINFECTION BYPRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BYPRODUCT PRECURSORS								
Total Trihalomethanes					Range	24–45	13–19	
(TTHM)	ppb	80	NA	1.0	Average	32	16	Byproduct of drinking water chlorination
Total Trihalomethanes					Range	26–61	19–28	
(TTHM) (o)	ppb	80	NA	1.0	Highest LRAA	42	33	Byproduct of drinking water chlorination
Total Trihalomethanes					Range	Distribution System-wide:	16–62	
(TTHM) (p)	ppb	80	NA	1.0	Highest LRAA	Distribution System-wide:	42	Byproduct of drinking water chlorination
Haloacetic Acids (five)					Range	6.4–15	2.7–5.3	
(HAA5)	ppb	60	NA	1.0	Average	8.8	4.3	Byproduct of drinking water chlorination
Haloacetic Acids (five)					Range	4.5–25	3.0–6.7	
(HAA5) (o)	ppb	60	NA	1.0	Highest LRAA	14	9.0	Byproduct of drinking water chlorination
Haloacetic Acids (five)					Range	Distribution System-wide:	ND–31	
(HAA5) (p)	ppb	60	NA	1.0	Highest LRAA	Distribution System-wide:	14	Byproduct of drinking water chlorination
					Range	Distribution System-wide:	0.9–3.1	
Total Chlorine Residual	ppm	[4.0]	[4.0]	NA	Highest RAA	Distribution System-wide:	2.4	Drinking water disinfectant added for treatment
					Range	NA	4.4–13	
Bromate (q)	ppb	10	0.1	1.0	Highest RAA	NA	7.4	Byproduct of drinking water ozonation
DBP Precursors Control					Range	TT	TT	Various natural and man-made sources;
as Total Organic Carbon (TOC)	ppm	TT	NA	0.30	Average	TT	TT	TOC as a medium for the formation of disinfection byproducts
SECONDARY STANDARDS—Aesthetic Standards								
					Range	77–220	ND–130	Residue from water treatment process;
Aluminum	ppb	200	600	50	Highest RAA	159	100	natural deposits erosion
					Range	103	89–97	Runoff/leaching from natural deposits;
Chloride	ppm	500	NA	NA	Average	103	93	seawater influence
	Color				Range	1	1-2	
Color	Units	15	NA	NA	Average	1	2	Naturally-occurring organic materials
					Range	ND	ND	Internal corrosion of household pipes; natural
Copper (j)	ppm	1.0	0.3	0.05	Average	ND	ND	deposits erosion; wood preservatives leaching
					Range	2	3	
Odor Threshold	TON	3	NA	1	Average	2	3	Naturally-occurring organic materials
					Range	ND	ND	
Silver	ppb	100	NA	10	Average	ND	ND	Industrial discharges
					Range	1,020–1,050	652–721	Substances that form ions in water;
Specific Conductance	µS/cm	1,600	NA	NA	Average	1,035	687	seawater influence
					Range	256–259	86–104	Runoff/leaching from natural deposits;
Sulfate	ppm	500	NA	0.5	Average	258	95	industrial wastes
Total Dissolved Solids					Range	650–659	377-423	Runoff/leaching from natural deposits;
(TDS)	ppm	1,000	NA	NA	Average	655	400	seawater influence
					Range	ND	ND	
Turbidity (a)	NTU	5	NA	0.1	Average	ND	ND	Soil runoff

OTHER PARAMETERS								
MICROBIOLOGICAL								
					Range	ND-1	ND–1	
HPC (f')	CFU/ml	NA	NA	NA	Median	ND	ND	Naturally present in the environment
CHEMICAL								
					Range	113–124	92–95	
Alkalinity (as CaCO3)	ppm	NA	NA	NA	Average	118	94	
					Range	150	270	Runoff/leaching from natural deposits;
Boron	ppb	NL = 1,000	NA	100	Average	150	270	industrial wastes
					Range	75–79	30-36	
Calcium	ppm	NA	NA	NA	Average	77	33	
					Range	60	39	Byproduct of drinking water chlorination;
Chlorate	ppb	NL = 800	NA	20	Range	Distribution System-wide:	26–60	industrial processes
Corrosivity (s)					Range	12.4-12.5	12.2	Elemental balance in water; affected
(as Aggressiveness Index)	AI	NA	NA	NA	Average	12.5	12.2	by temperature, other factors
Corrosivity (t)					Range	0.54–0.60	0.35–0.40	Elemental balance in water; affected
(as Saturation Index)	SI	NA	NA	NA	Average	0.57	0.38	by temperature, other factors
					Range	293–306	126–132	
Hardness (as CaCO3)	ppm	NA	NA	NA	Average	300	129	
					Range	25–27	12	
Magnesium	ppm	NA	NA	NA	Average	26	12	
	pH				Range	8.1	8.3	
pH	Units	NA	NA	NA	Average	8.1	8.3	
					Range	5.0–5.1	2.9–3.2	
Potassium	ppm	NA	NA	NA	Average	5.1	3.1	
					Range	ND	ND	
Radon (m)	pCi/L	NA	NA	100	Average	ND	ND	
					Range	104–106	84–94	
Sodium	ppm	NA	NA	NA	Average	105	89	
					Range	1.7–2.8	1.8–2.8	Various natural and man-made sources;
TOC	ppm	TT	NA	0.30	Highest RAA	2.5	2.2	TOC as a medium for the formation of disinfection byproducts
					Range	ND	7.4	
Vanadium	ppb	NL = 50	NA	3	Average	ND	7.4	Naturally-occurring; industrial waste discharge
N-Nitrosodimethylamine					Range	ND	ND–2.7	Byproduct of drinking water chloramination;
(NDMA)	ppt	NL = 10	3	2	Range	Distribution System-wide:	ND–5.1	industrial processes
Dichlorodifluoromethane					Range	ND	ND	
(Freon 12)	ppb	NL = 1,000	NA	0.5	Average	ND	ND	Industrial waste discharge

LEAD AND COPPER ACTION LEVELS AT RESIDENTIAL TAPS

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	32		ppb	1300	300	144	0	NO	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	32	2014	ppb	15	0.2	5.49	1	NO	Internal corrosion of household plumbing systems; discharges from industrial manufacturers; errosion of natural deposits

2016 BEVERLY HILLS WATER QUALITY DATA FROM OUR REVERSE OSMOSIS TREATMENT PLANT

Parameter	Sample Date	No. of Months in Violation	Units	State or Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	Level Detected	Typical Source of Contaminant
PRIMARY STANDARDS--Mandatory Health-Related Standards									
MICROBIOLOGICAL									
Total Coliform Bacteria	2016	0	%	5.0	(0)	NA	Range Average	0% 0%	Naturally present in the environment
E. coli	2016	0			(0)	NA	Range Average	0% 0%	Human and animal fecal waste
Heterotrophic Plate Count (HPC)	2016	0	CFU/mL	TT	NA	NA	Range Average	TT TT	Naturally present in the environment
INORGANIC CHEMICALS									
Fluoride Treated-Related	2016	0	ppm	2	1	0.1	Range Average	0 0	Erosion of natural deposits; water additive which promotes strong teeth;
Arsenic*	2016	0	ppb	10	0.004	2	Range Average	0 0	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
SECONDARY STANDARDS--Aesthetic Standards									
Chloride	2016	0	ppm	500	NA	NA	Range Average	0 0	Runoff/leaching from natural deposits; seawater influence
Manganese	2016	0	ppb	50	NL = 500	20	Range Average	0 0	Leaching from natural deposits
Sulfate	2016	0	ppm	500	NA	0.5	Range Average	0 0.0	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	2016	0	ppm	1000	NA	NA	Range Average	0 0	Runoff/leaching from natural deposits;

*Arsenic compliance is measured in the water treatment plant effluent. Results show that arsenic is reduced to meet safe and compliance standards.

*Water Treatment Plant (WTP) was offline for Capital Improvement Project (CIP) for the entire year of 2016.

BH2O Beverly Hills is Conserving
www.beverlyhills.org/conservation

2016 BEVERLY HILLS WATER QUALITY DATA FROM THE DISTRIBUTION SYSTEM

Parameters	Sample Date	No. of Months in Violation	Units	State MCL (MRDL)	PHG (MCLG) (MRDL)	Range Average	Level Detected	Typical Source of Contaminant
Total Coliform Bacteria	2016	0	%	5.0 (ad,b)	NA	Range Average	0 0	Naturally present in the environment
Turbidity (Weekly) (System)	2016	0	NTU	5	NA	Range Average	0 – 0.203 0.01	Soil runoff
Color	2016	0	Units	15	NA	Range Average	0 – 2 0.08	Naturally occurring organic material
Chlorine Residual (Weekly) (System) RAA	2016	0	ppm	4	4	Range Highest RAA	1.37 - 1.90 1.83	Disinfectant added for treatment
Fluoride (Weekly) (System)	2016	0	ppm	2	Control Range		0.6 – 1.2	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
					Optimal Level		0.7	
	2016				1	Range Average	.62 - 88 0.75	
Total Trihalomethanes (TTHM)	2016	0	ppb	80	NA	Range Highest RAA	33.8 - 40.9 36.7	By-products of drinking water disinfection
Haloacetic Acids (five) (HAA5)	2016	0	ppb	60	NA	Range Highest RAA	8.5 - 15.2 10.4	By-products of drinking water disinfection
Nitrite as N	2015	0	ppm	1	1	Range Average	0 - .044 0.005	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Odor	2016	0	TON	3	NA	Range Average	ND 0	Naturally occurring organic material

Water Conservation - Uplifting Update

If you don't want a water wise landscape, at least water wisely!
Grass does not have to be a water waster!

Beverly Hills water customers reduced their water use 22% in 2016. This is especially impressive given the State relaxed some regulations mid-year causing many of our neighboring cities conservation efforts to plummet.

The drought is officially over due to the ample rain events this past winter which have filled our reservoirs and created abundant snowpack. Our groundwater aquifers are still low and future rain years are unknown. Therefore, we must always remember *water conservation is a Beverly Hills way of life.*

The City's Water Conservation Administrator, Debby Figoni, assists our customers with conservation efforts through water wise landscaping workshops, large landscape water audits and the City's Water Tracker Program (water.beverlyhills.org).

For more information, visit bhsaves.org, call 310-285-2467 or email DFigoni@beverlyhills.org

Water Conservation is a Beverly Hills Way of Life

Large Landscape Water Evaluations

"Prior audits performed in Beverly Hills have helped residents reduce up to 50% of the total water used at their property!"

A typical single family home uses two-thirds of their total water consumption outdoors to water the landscape. In an effort to help our higher water consumers use water more efficiently, the City is offering large landscape water evaluations. Irrigation professionals will examine every valve and sprinkler in the landscape for water efficiency and provide a comprehensive report detailing adjustments and retrofits that can be implemented in order to reduce water use. There is a fee for the assessment, but the City will cover part of the cost. The resident is responsible for the other rest and for any retrofits they choose to perform. Prior audits performed in Beverly Hills have helped residents reduce up to 50% of the total water used at their property!

To sign up, please call 310-285-2467 or email DFigoni@beverlyhills.org

Control Your (Sprinkler) Controller

Experts estimate that up to 50-percent of residential irrigation water use goes to waste due to evaporation, runoff, or over-watering.

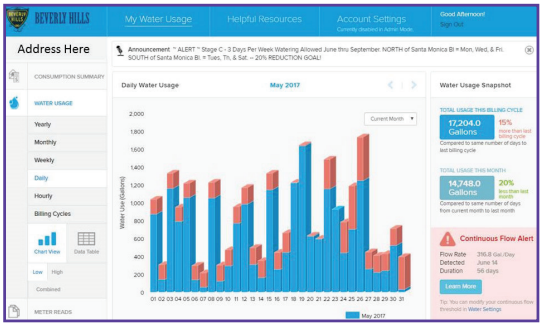
To use water efficiently in your landscape, follow these simple steps that produce great results:

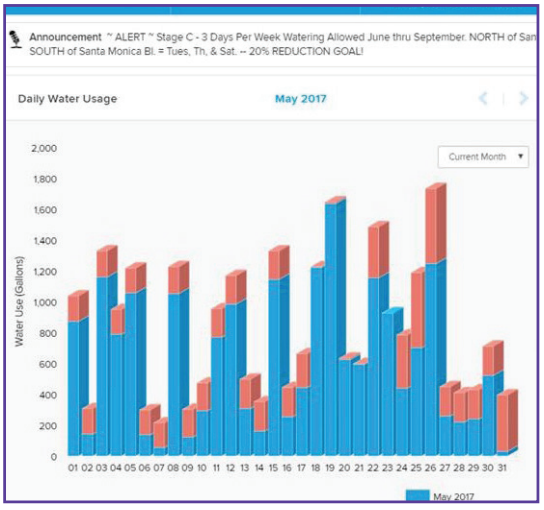
- Communicate with the person who sets your sprinkler controller to make sure the days and times are set the way you want. Install a new 9-volt back-up battery every year in the back of the controller which will keep your settings in case the power goes out.
- Adjust your sprinkler controller with the seasons. The City provides rebates on smart weather-based irrigation controllers that automatically adjust with the weather. For details, visit: SoCalWaterSmart.com
- Check your irrigation system monthly to ensure water is distributed evenly on the landscape and there is no over-spray onto paved areas. Look for an irrigation specialist to keep your system working efficiently.
- Water your landscape up to three days per week, adhering to the City's guidelines. Check for good, even sprinkler coverage. Aerate and dethatch the lawn one to two times per year.
- Landscape with plants that are suited for our climate. Many shrubs in existing landscapes are low water plants and can survive on half of the water they presently receive.
- **Sign up for Water Tracker to keep an eye on water usage water.beverlyhills.org**

Sign up for the City of Beverly Hills' FREE Water Tracker program to keep track of your daily, weekly or monthly water use.

This free program can help you save water, money and future headaches!

1	To sign up, visit water.beverlyhills.org and click on "signup here".
2	Enter your e-mail address and hit "submit".
3	Check your email (possibly junk mail) for a link to create a password.
4	Sign-in to Water Tracker using your login email address and newly created password.
5	To link up your account, enter your 6 digit customer number (check your water bill). Note: If your customer number is less than 6 digits, add "0" to the beginning of your number.
6	Re-enter your login and password to finalize set up.
7	Click "My Water Use" to start observing your usage. View your billing cycle usage at "Consumption Summary".
8	Set your notifications via "Account Settings" (top bar) to complete your "Account Profile" and hit "Save."
9	Go to "Water Settings" (side bar) and set: 1. "Usage Budget" at 10% above your typical outdoor watering day usage (ex: if you use 600 gallons, set it for 660 gallons "daily"), and 2. "Continuous Flow Threshold" at 0 in order to be notified of potential leaks. 3. Enter your email and cell phone (aka: sms) to receive leak or excessive water use alerts.
10	Save this site under your favorites





Caring for Your Lawn – Water Conservation Tips

If you don't want a water wise landscape, at least water wisely! Grass does not have to be a water waster!

WATERING GUIDELINES

On average, outdoor water use accounts for about two-thirds of a typical home's water use. Many homeowners over water their lawns by 30% to 100%! Not only can over-watering be bad for your lawn, it often causes the excess water to run off the landscape, into the street and down our storm drains.

EASY STEPS TO WATER MORE EFFICIENTLY

1. Water between 5:00 pm to 9:00 am (BH Municipal Code).
2. Water 3 days a week:

North of Santa Monica Blvd:

October - May: Monday and Friday
June - September: Monday, Wednesday & Friday

South of Santa Monica Blvd:

October - May: Tuesday and Saturday
June - September: Tuesday, Thursday and Saturday

3. Use MP rotating sprinkler heads which water slower and more efficiently than traditional sprinkler heads (rebates available at www.SoCalWaterSmart.com).
4. Water more efficiently for your type of grass, soil, sprinkler type and location.
5. Check and adjust your irrigation system (timer and sprinkler heads) monthly.
6. Install a weather based irrigation controller that automatically adjusts with the weather (rebates available at www.SoCalWaterSmart.com).
7. Change the back-up battery in your irrigation timer twice a year.

MOWING HEIGHT

Select less thirsty grasses (see options below). Use a longer cut for maximum water conservation and healthier turf. Raise your lawn mower blade to 3" to 3-1/2" in the summer and to 1-1/2" to 2-1/2" in the cooler months. A lawn cut higher encourages grass roots to grow deeper, shades the root system and holds in soil moisture better than a closely clipped lawn.

THIRSTY!

Cool Season Turf

Kentucky bluegrass
Fescue
Marathon
Ryegrass

MEDIUM WATER

Warm Season Turf

Bermuda
Zoysia
St. Augustine
Kikuyu

WATER WISE

Turf Alternatives

Buffalo Grass
Carex Pansa
Dymondia
Kurapia
Creeping Thyma
Various groundcovers

OTHER HELPFUL TIPS

1. **Water in Cycles** (aka: Cycle & Soak) – Deep watering less frequently encourages stronger, healthier turf with deeper roots. To avoid overwatering and run-off, water in cycles (example: instead of watering for 10 minutes straight, water for 5 minutes at 4:00 am and an hour later, water for another 5 minutes). If you have clay soil or a slope, you may need to split the time into three cycles. This also works well for water wise plants.
2. **Aerate and Dethatch** – At least twice a year aerate and dethatch your lawn to help water infiltrate.
3. **Reduce Lawn Area** – Expand planter bed borders with drought tolerant plants. Make sure these areas are on separate valves than your grass in order to water these areas appropriately.
4. **Grasscycle** – Leave grass clipping on the lawn to naturally decompose. The clippings return nutrients back into the soil and prevent overfilling our landfills.
5. **Fertilizer** – If you fertilize, use an organic compost or composted manure instead of chemical fertilizers. This will build healthier soil, conserve moisture, and be less likely to cause water quality problems if run-off gets into our storm drains.

Finding a Leak

Where, Oh Where, Could Your Water Leak Be?

It is not uncommon for continuous water flow issues to occur in a home or business. Most of the time, they are easy to find and easy to repair. The City of Beverly Hills has a helpful tool called "Water Tracker" that shows the customer their daily water use. Plus, it notifies the customer of continuous flow issues (such as a leak or the irrigation being stuck on). **To sign up or Water Tracker, visit: water.beverlyhills.org**

BASIC AREAS TO LOOK FOR LEAKS		
Area	**Leak (gallons/hr)**	**How to Detect It**
Toilet	Up to 200	Put a few drops of food coloring in the toilet tank and wait 15 minutes. If food color leaks to toilet bowl, you have a leak. To avoid staining the toilet, flush after test is completed.
Irrigation	Up to hundreds	1. Check each head and riser for leaks. 2. Check the valve to see if it is leaking. 3. If there are no leaks here, turn off the valve that moves water to your irrigation system (not all homes have this) – Note that this has nothing to do with your irrigation controller. Underground irrigation leaks are more common in older, galvanized pipes.
Water Heater	Up to hundreds	Check your heater water leaking into a nearby drain. (Note: This can also cause an increase to your gas bill.)
Pool, Pond or Jacuzzi	Up to hundreds	1. Check float valve to see if it's functioning properly. 2. Check auto fill to see if it's running. Check the water feature for leaks.
Pipes	Up to hundreds	1. Check pipes to house, especially older, galvanized steel. 2. It may take a leak detection company to detect more challenging leaks.

If you cannot find the issue, try to isolate it. Check your water meter (see "How To Read Your Meter" flyer) to see the flow rate. Shut off the valve that supplies water to the irrigation (your gardener may have to help) and check the meter again. If the short read on the meter shows "0", the issue is in your irrigation. If the meter is still registering a flow, turn off the water to the house and check the meter again. If the meter read does not change, the issue may be in the service line (the pipe going from the house to the meter). For leaks you cannot locate or fix yourself, contact a plumber or leak detection company. FYI - A leak of 1 gallon per minute could cost you $600 to $1,800 a billing cycle!

BH2O Saving in Style
www.bhsaves.org

310-285-2467 *dfigoni@beverlyhills.org* *www.BHSaves.org*

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Water Conservation Stage C

Water Conservation is a Beverly Hills Way of Life

STAGE C

ontinue to conserve
ommunicate with your gardener
orrect leaks

In April of 2017, the City moved to a Water Conservation Stage C. The changes associated with Stage C include:

20% water reduction

(citywide, not per customer)

New Watering Schedule:		
	**October - May**	**June - September**
North of Santa Monica Blvd.	Monday & Friday	Monday, Wednesday & Friday
South of Santa Monica Blvd.	Tuesday & Saturday	Tuesday, Thursday & Saturday

No pool refill fee

Information: bhsaves.org | 310-285-2467

ABBREVIATIONS

AI	Aggressiveness Index	MCLG	Maximum Contaminant Level Goal	ppt	parts per trillion or nanograms per liter (ng/L)
AL	Action Level	MFL	Million Fibers per Liter	RAA	Running Annual Average; highest RAA is the highest of all Running Annual Averages calculated as average of all the samples collected within a 12-month period
Average	Result based on arithmetic mean	MRDL	Maximum Residual Disinfectant Level		
CaCO3	Calcium Carbonate	MRDLG	Maximum Residual Disinfectant Level Goal		
CFU	Colony-Forming Units	NA	Not Applicable	Range	Results based on minimum and maximum values
DBP	Disinfection Byproducts	ND	Not Detected	SI	Saturation Index (Langelier)
DLR	Detection Limits for Purposes of Reporting	NL	Notification Level	SWRCB	State Water Resources Control Board
LRAA	Locational Running Annual Average; highest LRAA is the highest of all Locational Running Annual Averages calculated as average of all samples collected within a 12-month period	NTU	Nephelometric Turbidity Units	TON	Threshold Odor Number
		pCi/L	picoCuries per Liter	TT	Treatment Technique is a required process intended to reduce the level of a contaminant in drinking water
		PHG	Public Health Goal		
		ppb	parts per billion or micrograms per liter (µg/L)		
MBAS	Methylene Blue Active Substances	ppm	parts per million or milligram per liter (mg/L)	(µS/cm)	microSiemen per centimeter; or micromho per centimeter (µmho/cm)
MCL	Maximum Contaminant Level	ppq	parts per quadrillion or picograms per liter (pg/L)		

DEFINITIONS

1. **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 (MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
2. **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. Environmental Protection Agency.
3. **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.
4. **Maximum Residual Disinfectant Level (MRDL):** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.
5. **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.
6. **Primary Drinking Water Standard (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
7. **Treatment Technique:** A required process intended to reduce the level of a contaminant in drinking water.
8. **Regulatory Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

FOOTNOTES

(a) As a Primary Standard, the turbidity levels of the filtered water were less than or equal to 0.3 NTU in 95% of the online measurements taken each month and did not exceed 1 NTU for more than one hour. Turbidity, a measure of the cloudiness of the water, is an indicator of treatment performance. The turbidity levels for grab samples at these locations were in compliance with the Secondary Standard.

(b) Total coliform MCL: No more than 5.0% total coliform-positive samples in a month. Compliance is based on the combined distribution system sampling from all of the treatment plants. Three total coliform-positive samples were found out of the 7,106 samples analyzed in 2016. The MCL was not violated.

(c) Acute total coliform (E. coli) MCL: The occurrence of two consecutive total coliform-positive samples, one of which contains E. coli, constitutes an acute MCL violation. No samples were E. coli-positive and the MCL was not violated.

(d) Total coliform TT trigger, Level 1 assessments, and total coliform TT violations: More than 5.0% total coliform-positive samples in a month trigger Level 1 assessments. Failure to conduct assessments and correct findings within 30 days is a total coliform violation. No triggers, Level 1 assessments, or violations occurred.

(e) E. coli MCL and Level 2 TT triggers for assessments: Routine and repeat samples are total coliform-positive and either sample is E. coli-positive or system fails to collect all repeat samples following an E. coli-positive sample, or fails to test for E. coli when therepeat sample is total coliform-positive. No samples were E. coli-positive. No MCLs violations or no assessments occurred.

(f) All distribution system samples collected had detectable total chlorine residuals and no HPC was required. (f') HPC reporting level is 1 CFU/mL. Values are based on monthly median per State guidelines and recommendations.

(g) Data are from samples collected in 2015. Metropolitan's required triennial monitoring (2017-2019) will be performed in 2018.

(h) Data are from samples collected in 2011 and reported once every nine-year compliance cycle until the next samples are collected.

(i) Metropolitan's chromium VI reporting level is 0.03 ppb, which is below the state DLR of 1 ppb. Data above Metropolitan's reporting level but below the DLR are reported as ND in this report. These data are available upon request.

(j) As a wholesaler, Metropolitan has no retail customers and is not required to collect samples at the consumers' tap under the Lead and Copper Rule. Results are based from annual compliance monitoring.

(k) Metropolitan was in compliance with all provisions of the State's Fluoridation System Requirements.

(l) Metropolitan's perchlorate reporting level is 0.1 ppb, which is below the state DLR of 4 ppb.Data above Metropolitan's reporting level but below the DLR are reported as ND in this report. These data are available upon request.

(m) Data are from samples collected (triennially) during four consecutive quarters of monitoring in 2014 and reported for three years until the next samples are collected.

(n) SWRCB considers 50 pCi/L to be the level of concern for beta particles.

(o) These data represent the treatment plant specific core locations per the State approved monitoring plan. For the Jensen service area, the data for the B-5 location were excluded when served by the Weymouth treatment plant.

(p) These data represent the Locational Running Annual Average (LRAA) of all data collected at distribution system-wide monitoring locations.

(q) No MCL exceedance occurred. Compliance with State and Federal Bromate MCL is based on RAA.

(r) Noncompliance monthly percentage of coliform-positive samples analyzed at each treatment plant.

(s) AI ≥ 12.0 = Non-aggressive water
AI (10.0–11.9) = Moderately aggressive water
AI ≤ 10.0 = Highly aggressive water
Reference: ANSI/AWWA Standard C400-93 (R98)

(t) Positive SI index = non-corrosive; tendency to precipitate and/or deposit scale on pipes
Negative SI index = corrosive; tendency to dissolve calcium carbonate

BH2O BEVERLY HILLS

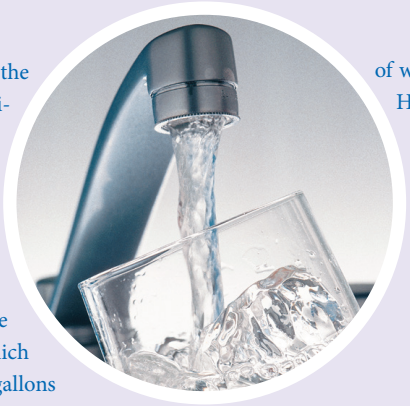
City Information and Guidelines

Beverly Hills is in Stage C water conservation restrictions. This requires a 20% reduction in water use citywide. For ways you can use water more efficiently, visit **www.bhsaves.org**. City staff are here to help! Let's work together to make water conservation a Beverly Hills way of life.

Use Water Wisely

As your drinking water provider, we work hard to eliminate leaks in the treatment and distribution systems. Leaks inside homes and businesses are the responsibility of the property owner. Leaks can waste large amounts of water. A toilet that "keeps running" can easily waste from 200 to several thousand gallons of water a day!

Check your Utility Bill regularly for water use fluctuations and compare it to past bills. Use our Water Tracker Program to find your water use history at **water.beverlyhills.org** Large fluctuations in use can indicate leaks. Water use is measured in units called HCF, which stands for hundred (100) cubic feet. One HCF of water equals 748 gallons of water. The typical household in Beverly Hills uses 70 HCF of water per billing cycle.



Contact our Customer Service at (310) 285-2467 to receive assistance or if you would like to request a toilet leak detection dye packet. Be aware that most leaks occur in toilets and irrigation systems.

This publication was created by the City of Beverly Hills, Public Works Department, as part of its Environmental Programs outreach efforts. Log on to www.beverlyhills.org to learn more about the City and its services for residents and businesses.

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