Beverly Hills

Partners in Environmental Protection

2015 Consumer Confidence Report

THE 2015 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 Services - Infrastructure and Field Operations, at (310) 285-2486. 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 8:30 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 2015 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.

IRRIGATION CONTROLLER GUIDELINES

Water Wisely

- Irrigate 2 days per week (per BH Municipal Code)
  - ***North of Santa Monica Blvd:*** Mondays & Fridays
  - ***South of Santa Monica Blvd:*** Tuesdays & Saturdays
- Water before 9 am or after 5 pm
- Check and adjust your sprinkler system monthly
- Turn off your controller after it rains
- Install a backup battery in your controller (replace battery twice a year)

Beverly Hills must reduce its water use by at least 30%. Let's work together to meet this goal!

BEVERLY HILLS

Questions: (310) 285-2467

Don't set & forget

BH2O Saving in Style
www.bhsaves.org

www.bhsaves.org **5/2016**

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/gallons.

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.

MONEY SAVING REBATES

Residential water consumers are the largest contributor to California's urban water 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. It is time to actively participate in conservation by changing our habits and installing water efficient devices.

The City of Beverly Hills encourages all residents and businesses to look into rebates for water saving devices such as toilets, washing machines, sprinkler nozzles, and weather based irrigation controllers. For details, visit 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.

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) 285-2486.

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

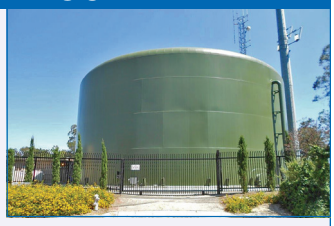
State Water Resources Control Board, Division of Drinking Water
www.waterboards.ca.gov/drinking_water/programs/index.sht

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 http://www.epa.gov/safewater/lead. 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.

2015 BEVERLY HILLS WATER QUALITY REPORT FROM OUR MWD SOURCES

Parameter	Units	State or Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	Treatment Plant Effluent: Weymmouth Plant	Treatment Plant Effluent: Jensen Plant	Major Sources in Drinking Water
					Range	0	100	
Percent State Project Water	%	NA	NA	NA	Average	0	100	
PRIMARY STANDARDS--Mandatory Health-Related Standards								
CLARITY								
Combined Filter	NTU	TT = 1			Highest	0.05	0.09	
Effluent Turbidity	%	TT (a)	NA	NA	% ≤0.3	100	100	Soil runoff
MICROBIOLOGICAL								
Total Coliform					Range	Distrib. System-wide: ND – 0.2		
Bacteria (b)	%	5.0	(0)	NA	Average	Distribution System-wide: ND		Naturally present in the environment
E. coli	(c)	(c)	(0)	NA		Distribution System-wide: ND		Human and animal fecal waste
Heterotrophic Plate					Range	Distribution System-wide: TT		
Count (HPC) (d)	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								
					Range	TT	TT	
Acrylamide	NA	TT	(0)	NA	Average	TT	TT	Water treatment chemical impurities
					Range	TT	TT	
Epichlorohyydrin	NA	TT	(0)	NA	Average	TT	TT	Water treatment chemical impurities
INORGANIC CHEMICALS								
					Range	88 – 200	ND – 84	Residue from water treatment process;
Aluminum	ppb	1000	600	50	Highest RAA	156	ND	natural deposits; erosion
					Range	ND	ND	Asbestos cement pipes internal corrosion;
Asbestos (e)	MFL	7	7	0.2	Average	ND	ND	natural deposits erosion
					Range	2.1	3.3	Natural deposits erosion, glass and
Arsenic	ppb	10	0.004	2	Average	2.1	3.3	electronics production wastes
					Range	ND	ND	Runoff/leaching from natural deposits;
Chromum VI (f)	ppb	10	0.02	1	Average	ND	ND	discharge from industrial waste factories
					Range	ND	ND	Internal corrosion of galvanized pipes; natural
Copper (g)	ppm	AL = 1.3	0.3	0.05	Average	ND	ND	deposits erosion
					Range	ND	ND	House pipes internal corrosions; natural
Lead (g)	ppb	AL = 15	0.2	5	Average	ND	ND	deposits erosion
					Range	122	ND	Oil and metal refineries discharge; natural
Barium	ppb	1000	2000	100	Average	122	ND	deposits erosion
		Control Range:				0.6 – 1.2	0.6 – 1.2	
		Optimal Fluoride Level				0.7	0.7	
					Range	0.6 – 1.2	0.7 – 0.9	
Fluoride (h)					Average	0.7	0.8	Erosion of natural deposits; water additive that
treatment-related	ppm	2.0	1	0.1	Range	Distrib. System-wide: 0.6 – 1.0		promotes strong teeth
					Average	ND	ND	Erosion of natural deposits; discharge from
Nickel	ppb	100	12	10	Range	ND	ND	metal factories
					Range	ND	0.6 – 0.9	Runoff and leaching from fertilizer use; septic
Nitrate (as Nitrogen) (i)	ppm	10	10	0.4	Average	ND	0.8	tank and sewage; natural deposits erosion
					Range	ND	ND	Runoff and leaching from fertilizer use; septic
Nitrite (as Nitrogen)	ppm	1	1	0.4	Average	ND	ND	tank and sewage; natural deposits erosion
					Range	ND	ND	
Perchlorate (j)	ppb	6	1	4	Average	ND	ND	Industrial waste discharge
RADIOLOGICALS (k)								
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 (l)	(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 BYPRODUCTS PRECURSORS								
Total Trihalomethanes					Range	23 – 30	7.1 – 19	
(TTHM)	ppb	80	NA	1.0	Average	28	14	Byproduct of drinking water chlorination
Total Trihalomethanes					Range	25 – 46	22 – 40	
(TTHM) (m)	ppb	80	NA	1.0	Highest LRAA	39	34	Byproduct of drinking water chlorination
Total Trihalomethanes					Range	Distrib. System-wide: 17 – 66		
(TTHM) (n)	ppb	80	NA	1.0	Highest LRAA	Distrib. System-wide: 39		Byproduct of drinking water chlorination
Haloacetic Acids (five)					Range	7.8 – 13	3.3 – 6.7	
(HAA5)	ppb	60	NA	1 .0	Average	10	4.4	Byproduct of drinking water chlorination

2015 BEVERLY HILLS WATER QUALITY REPORT FROM OUR MWD SOURCES (CONTINUED)

Parameter	Units	State or Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	Treatment Plant Effluent: Weymmouth Plant	Treatment Plant Effluent: Jensen Plant	Major Sources in Drinking Water
PRIMARY STANDARDS--Mandatory Health-Related Standards								
DISINFECTION BYPRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BYPRODUCTS PRECURSORS - continued								
Haloacetic Acids (five) (HAA5) (m)	ppb	60	NA	1.0	Range Highest LRAA	8.5 – 19 16	3.2 – 18 14	Byproduct of drinking water chlorination
Haloacetic Acids (five) (HAA5) (n)	ppb	60	NA	1.0	Range Highest LRAA	Distrib. System-wide: 1.7 – 20 Distrib. System-wide: 17		Byproduct of drinking water chlorination
Total Chlorine Residual	ppm	[4.0]	[4.0]	NA	Range Highest RAA	Distrib. System-wide: 1.1 – 3.0 Distrib. System-wide: 2.4		Drinking water disinfectant added for treatment
Bromate	ppb	10	0.1	1.0	Range Highest RAA	NA NA	1.1 – 13 8.0	Byproduct of drinking water ozonation
DBP Precursors Control as Total Organic Carbon (TOC)	ppm	TT	NA	0.30	Range Average	TT TT	TT TT	Various natural and man-made sources; TOC as a medium for the formation of disinfection byproducts
SECONDARY STANDARDS--Aesthetic Standards								
Chloride	ppm	500	NA	NA	Range Average	98 – 102 100	85 – 86 86	Runoff/leaching from natural deposits; seawater influence
Color	Color Units	15	NA	NA	Range Average	1 1	1 1	Naturally occurring organic materials
Copper (g)	ppm	1.0	0.3	0.05	Range Average	ND ND	ND ND	Internal corrosion of household pipes; natural deposits erosion; wood preservatives leaching
Odor Threshold	TON	3	NA	1	Range Average	2 2	2 2	Naturally-occurring organic materials
Specific Conductance	µS/cm	1600	NA	NA	Range Average	1030 – 1060 1040	692 – 703 698	Substances that form ions in water; seawater influence
Sulfate	ppm	500	NA	0.5	Range Average	252 – 261 257	108 – 112 110	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	ppm	1000	NA	NA	Range Average	654 – 665 660	405 405	Runoff/leaching from natural deposits; seawater influence
Turbidity (a)	NTU	5	NA	0.1	Range Average	ND ND	ND ND	Soil runoff
OTHER PARAMETERS								
MICROBIOLOGICAL								
HPC (d)	CFU/ml	TT	NA	NA	Range Median	ND ND	ND – 1 ND	Naturally present in the environment
CHEMICAL								
Alkalinity (as $CaCO_3$)	ppm	NA	NA	NA	Range Average	123 – 129 126	89 – 92 91	
Boron	ppb	NL=1000	NA	100	Range Average	120 120	240 240	Runoff/leaching from natural deposits; industrial wastes
Calcium	ppm	NA	NA	NA	Range Average	77 – 78 78	36 36	
Chlorate	ppb	NL=800	NA	20	Range Range	104 Distrib. System-wide: 91 – 147	70	By-product of drinking water chlorination; industrial processes
Corrosivity (o) (as Aggressiveness Index)	AI	NA	NA	NA	Range Average	12.5 12.5	12.1 – 12.3 12.2	Elemental balance in water; affected by temperature, other factors
Corrosivity (p) (as Saturation Index)	SI	NA	NA	NA	Range Average	0.56 – 0.58 0.57	0.21 – 0.51 0.36	Elemental balance in water; affected by temperature, other factors
Hardness (as $CaCO_3$)	ppm	NA	NA	NA	Range Average	296 – 304 300	130 – 134 192	
Magnesium	ppm	NA	NA	NA	Range Average	26 – 28 27	10 – 11 11	
pH	pH Units	NA	NA	NA	Range Average	8.1 8.1	8.2 – 8.4 8.3	
Potassium	ppm	NA	NA	NA	Range Average	4.8 – 5.0 4.9	2.5 – 2.9 2.7	
Radon (k)	pCi/L	NA	NA	100	Range Average	ND ND	ND ND	
Sodium	ppm	NA	NA	NA	Range Average	97 – 102 100	90 – 92 91	
TOC	ppm	TT	NA	0.30	Range Highest RAA	2.4 – 2.8 2.6	1.2 – 2.4 1.6	Various natural and man-made sources; TOC as a medium for the formation of disinfection byproducts
Vanadium	ppb	NL=50	NA	3	Range Average	ND ND	7.7 7.7	Naturally-occurring; industrial waste discharge
N-Nitrosodimethylamine (NDMA)	ppt	NL=10	3	2	Range Range	ND Distrib. System-wide: ND – 6.0	2.1 – 2.2	Byproduct of drinking water chlorination; industrial processes
Dichlorodifluoromethane (Freon 12)	ppb	NL=1000	NA	0.5	Range Average	ND ND	ND ND	Industrial waste discharge

2015 BEVERLY HILLS WATER QUALITY REPORT FROM REVERSE OSMOSIS WATER 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 (ad)	2015	0	%	5.0 (ad,b)	(0)	NA	Range Average	0% 0%	Naturally present in the environment
E. coli (ad)	2015	0			(0)	NA	Range Average	0% 0%	Human and animal fecal waste
Heterotrophic Plate Count (HPC) (ae)	2015	0	CFU/mL	TT	NA	NA	Range Average	TT TT	Naturally present in the environment
INORGANIC CHEMICALS									
Fluoride Treated-Related	2015	0	ppm	2	1	0.1	Range Average	0.88 – 1.1 0.96	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Arsenic*	2015	0	ppb	10	0.004	2	Range Average	1.6 – 5.0 3.5	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
SECONDARY STANDARDS--Aesthetic Standards									
Chloride	2015	0	ppm	500	NA	NA	Range Average	50 – 93 72.4	Runoff/leaching from natural deposits; seawater influence
Manganese	2015	0	ppb	50	NL = 500	20	Range Average	7.3 – 15.4 10.3	Leaching from natural deposits
Sulfate	2015	0	ppm	500	NA	0.5	Range Average	0 – 108 64.4	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	2015	0	ppm	1000	NA	NA	Range Average	326 – 453 375.4	Runoff/leaching from natural deposits; seawater influence

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

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

2015 BEVERLY HILLS WATER QUALITY REPORT FOR 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 (ad)	2015	0	%	5.0 (ad,b)	NA	Range Average	0 – 1.1 0	Naturally present in the environment
Turbidity (Weekly) (System) (a)	2015	0	NTU	5	NA	Range Average	0 – 0.18 0.02	Soil runoff
Color	2015	0	Units	15	NA	Range Average	0 – 1 0.003	Naturally occurring organic material
Chlorine Residual (Weekly) (System) RAA	2015	0	ppm	4	4	Range Highest RAA	1.00 – 2.53 1.83	Disinfectant added for treatment
Fluoride (Weekly) (System)	2015	0	ppm	2	Control Range Optimal Level 1	Range Average	0.6 – 1.2 0.7 0.72 – 1.16 0.81	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Total Trihalomethanes (TTHM) (ab,l)	2015	0	ppb	80	NA	Range Highest RAA	26.9 – 43.1 37.2	By-products of drinking water disinfection
Haloacetic Acids (five) (HAA5) (ab,m)	2015	0	ppb	60	NA	Range Highest RAA	11.9 – 21.0 16.63	By-products of drinking water disinfection
Nitrite as N	2015	0	ppm	1	1	Range Average	0 – 0.008 ND	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Odor	2015	0	TON	3	NA	Range Average	ND ND	Naturally occurring organic material

LEAD AND COPPER ACTION LEVELS AT RESIDENTIAL TAPS

Parameter	Sample Date	No. of Samples Collected	Units	Action Level (AL)	Health Goal	90th Percentile Value	No. of Sites Exceeding AL	AL Violations?	Typical Source of Contaminant
Copper (af)	2014	32	ppb	1300	300	144	0	NO	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (af)	2014	32	ppb	15	0.2	5.49	1	NO	Internal corrosion of household plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Water Wise Landscaping Workshops this Summer

Learn how to beautify your landscape while making it more water efficient at the City's FREE water wise landscaping workshops

SCHEDULE OF WORKSHOPS

DATE	TIME	TOPIC
Wednesday, June 22	6:30pm to 8:45pm	Efficient Irrigation & Water Tracker Training
Saturday, June 25	9:00am to 11:30am	Efficient Irrigation & Water Tracker Training
Wednesday, July 13	6:30pm to 8:45pm	Water Wise Plants
Saturday, July 16	9:00am to 11:30am	Water Wise Plants
Saturday, August 6	9:00am to 11:30am	Water Wise Landscaping Preparation & Design
Tuesday, August 9	6:30pm to 8:45pm	Composting – Backyard & Worm

All classes will be held at the City of Beverly Hills' Public Works Building at 345 Foothill Boulevard. Parking is available on 3rd Street in between Foothill and Civic Center (validations will be provided). **RSVP to (310) 285-2467. Walk-ins welcome. Additional workshops will be scheduled in the Fall.**

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 300%! Not only can overwatering 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

Water between 5:00 pm to 9:00 am (BH Municipal Code).

1. Water 2 days a week*:
   a. Monday and Friday (residents living north of Santa Monica Blvd.)
   b. Tuesday and Saturday (residents living south of Santa Monica Blvd.)
   **** Beverly Hills' Stage 2 Drought Rules***
2. Use MP rotating sprinkler heads which water slower and more efficiently than traditional sprinkler heads (rebates available at SoCalWaterSmart.com).
3. Water more precisely for your type of grass, soil, sprinkler type and location. For details, visit: bewaterwise.com/calculator.html
4. Check and adjust your irrigation system (timer and sprinkler heads) monthly.
5. Install a weather based irrigation controller that automatically adjusts with the weather (rebates available at SoCalWaterSmart.com).
6. Change the back-up battery in your irrigation timer twice a year.

MOWING HEIGHT

Select less thirsty grasses (see below) and mow it to the correct height. 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
Agrostis Pallens
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 a third cycle. 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 goes into our storm drains.

Watering Tips for Your Trees

TREE WATERING FACTS

- Beverly Hills' Urban Forest is a proud member of Tree City USA!
- Young trees, even drought tolerant ones, need water. Some mature drought tolerant trees can survive on rain water plus infrequent, deep irrigation watering.
- Young trees are particularly susceptible to competition from turf grass. Remove all grass from the trunk out to a foot beyond the drip line (the outer canopy of the leaves).
- Deep watering is much better than shallow watering which encourages shallow roots that can be dangerous and cause the tree to be more prone to drought stress.
- Trees increase home property values, clean our air, reduce city noise, provide habitat for birds and other wildlife, and mental well-being.
- During the drought, trees should be given a higher priority than lawns. Lawns can be replaced in a matter of weeks whereas a 20 year old tree will take 20 years to replace.

TREE WATERING TIPS

- How much water your tree should receive depends upon the tree size. A general rule of thumb is to use approximately 10 gallons of water per inch of trunk diameter for each watering.
- Depending on the tree type and size, water every three to six weeks.
- Make sure the water gets into the soil at least two feet deep.
- All size trees should be watered about once a month from April through September. Trees should also receive adequate water during the winter months if rainfall is scarce.
- One to two deep waterings per month (depending on the tree and time of year) are much better than many shallow waterings.
- Place 2" to 3" of mulch around the tree (away from trunk). The tree's leaves are great mulch!

WAYS TO WATER

- **Hand Watering:** Directly apply water with a hose to the drip line of the tree. Create a moat at the root zone (do not disturb the roots) to hold the water and reduce runoff.
- **Soaker Hose:** Place a soaker hose around a tree's outer canopy (move out as tree grows) to water effectively. For deep watering, keep the hose on for an extended period of time.
- **Tree Watering Stakes:** These plastic, PVC-looking stakes, are dug into the soil (they range from 6" to 36"). Place a hose or dip line into the stake and allow the water to get deep in the soil.
- **Overhead Sprinklers:** This is not very efficient. But, you can convert your overhead sprinklers to drip with a conservation kit to effectively water your tree.

For more information on keeping trees healthy, visit: treesaregood.com and arborday.org

Fun Fact: One billing unit of water is 748 gallons – enough to water 3 large trees for a year!

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 will show the customer their daily water use. Plus, it will notify the customer of continuous flow issues (such as a leak or the irrigation being stuck on). **To sign up for Water Tracker, visit: http://water.beverlyhills.org/**

BASIC AREAS TO LOOK FOR LEAKS		
Area	**Potential Leak (gallons/hr)**	**How to Detect It**
Toilet	Up to 100	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 complete.
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	1. Check your heater water leaking into a nearby drain. (Note: This can also cause an increase to your gas bill.)
Pool, Jacuzzi or Pond	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. If all other areas are leak free, check pipes to house, especially older, galvanized steel. 2. This often takes a leak detection company to detect leaks under asphalt or concrete.

BH2O Saving in Style
www.bhsaves.org

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
$CaCO_3$	Calcium Carbonate	MRDL	Maximum Residual Disinfectant Level		
CFU	Colony-Forming Units	MRDLG	Maximum Residual Disinfectant Level Goal		
DBP	Disinfection By-Products	NA	Not Applicable	SI	Saturation Index (Langelier)
DDW	Division of Drinking Water	ND	None Detected	TON	Threshold Odor Number
DLR	Detection Limits for purposes of Reporting	NL	Notification Level	TT	Treatment Technique is a required process intended to reduce the level of a contaminant in drinking water
LRAA	Locational Running Annual Average 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		
		pCi/L	picoCuries per Liter	µS/cm	microSiemen per centimeter; or micromho per centimeter (µmho/cm)
		PHG	Public Health Goal		
		ppb	parts per billion or micrograms per liter (µg/L)		
MBAS	Methylene Blue Active Substances	ppm	parts per million or milligrams per liter (mg/L)		
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 MCLs: No more than 5.0% of the monthly samples may be total coliform-positive. Compliance is based on the combined distribution system sampling from all the treatment plants. In 2015, 7,509 samples were analyzed and three samples were positive for total coliforms. The MCL was not violated.

(c) *E.coli* MCL: The occurrence of two consecutive total coliform-positive samples, one of which contains *E. coli*, constitutes an acute MCL violation. The MCL was not violated.

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

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

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

(g) As a wholesaler, Metropolitan is not required to collect samples at the consumers' tap under the Lead and Copper Rule.

(h) Starting June 1, 2015, the fluoride levels at the treatment plant were adjusted to achieve an optimal fluoride level of 0.7 ppm and a control range of 0.6 ppm to 1.2 ppm. Metropolitan was in compliance with all provisions of the State's Fluoridation System Requirements.

(i) State MCL is 45 ppm as nitrate, which is the equivalent of 10 ppm as N.

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

(k) 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.

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

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

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

(o) AI ≥ 12.0 = Non-aggressive water; AI (10.0 – 11.9) = Moderately aggressive water; AI ≤ 10.0 = Highly aggressive water

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

(aa) City of Beverly Hills fluoride field monitoring results. In 2015, the City received fluoridated water from MWD the City's reverse osmosis water treatment plant.

(ab) In 2015, City of Beverly Hills was in compliance with all provisions of the Stage 2 Disinfectant/Disinfection By-Products (D/DBP) Rule.

(ac) In 2015, 1096 samples were analyzed for total coliform bacteria. 1 positive coliform result occurred in 2015.

(ad) Total Coliform Bacteria and E.Coli tests were performed weekly on reverse osmosis plant effluent samples when in operation. In 2015, 5 samples were analyzed for coliform bacteria.

(ae) HPC test was performed on the weekly plant effluent samples in the City's reverse osmosis water treatment plant when in operation.

(af) Lead and copper are regulated as a Treatment Technique under the Lead and Copper Rule. It requires systems to take water samples at the consumer's tap. The action levels, which trigger water systems into taking treatment steps if exceeded in more than 10% of the tap water samples, are 1.3 ppm for copper and 15 ppb for lead. The set samples taken did not trigger treatment requirements for lead and copper.

City Information and Guidelines

Beverly Hills must reduce its water use by at least 30%. Please consult the City's Water Conservation pages at www.beverlyhills.org/living/recyclingandconservation/water/guidelinesandinformation. Content and guidelines are updated on a regular basis. Let's work together to meet this goal!

Use Water Wisely – Control Water Costs

As your drinking water provider, we work to control costs by eliminating leaks in the treatment and distribution systems. Leaks inside homes and businesses are the responsibility of the property owner. Leaks waste large amounts of water. A toilet that "keeps running" or a dripping faucet can waste hundreds of gallons and dollars in a short time. A leaky toilet can waste from 200 to several thousand gallons a day.

Check your Utility Bill regularly for water use fluctuations and compare it to past bills. Use our water tracker to find your water use history at **http://apps.beverlyhills.org/internetApps/WaterUsage.jsp**.

Large fluctuations in use can indicate leaks. Water use is measured in units called Ccf, which stands for 100 cubic feet. One Ccf of water equals 748 gallons of water. The typical household in Beverly Hills uses 70 Ccf of water per billing cycle.

Contact our Customer Service at (310) 285-2467 to receive assistance or if you'd like to request a toilet leak detection dye packet. Remember, most leaks occur in your toilet or irrigation system.

This publication was created by the City of Beverly Hills, Department of Public Works Services, 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.

This publication was printed using soy-based ink and recycled paper.

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