# Beverly Hills

Partners in Environmental Protection

# 2013 Consumer Confidence Report

## LETTER FROM THE ASSISTANT DIRECTOR

Drinking Water Infrastructure. It may sound boring, but take a deeper look. You'll find the amazing role the City of Beverly Hills pipes, pumps and treatment plants play to bring some of the best water in the world to your tap.

The water beneath our feet is necessary for life, yet few of us think about the amazing system that delivers it to our taps. It takes 30 highly trained staff, and lots of equipment, to bring you what you have come to expect: the best water in the nation, for less than a penny a gallon.

Preventing leaks is one way water is conserved; your efforts are another. Why is conservation so important in our region? It gives customers ways to lower their utility bills. It helps make the water system more reliable by reducing waste and leaving water available for when it's needed most. And, conserving water means that we'll have enough water for ourselves and future generations.

If you have questions or comments about this annual report please contact the City of Beverly Hills, Public Work Services at (310) 285-2467.

Sincerely,

Trish Rhay
Assistant Director
Public Works Services
Infrastructure and Field Operations

## 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 is encouraging all residents to visit www.bewaterwise.com to find qualifying products lists and rebates for water efficient devices. We encourage you to apply for your rebates immediately as funding decreases throughout the year.*

## 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

**California Department of Public Health, Division of Drinking Water and Environmental Management**
http://www.cdph.ca.gov/programs/Pages/DWP.aspx

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

**Water Conservation Tips**
www.bewaterwise.com

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

## THE 2013 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 2013 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.

## WATER CONSERVATION TABLE
(COURTESY OF WWW.BEWATERWISE.COM)

| What you can do | How much you can save |
|---|---|
| **INDOOR** | |
| Turn off the water when you brush your teeth | 3 gallons per day |
| Shorten your showers by one or two minutes | 5 gallons per day |
| Fix leaky faucets | 20 gallons per day |
| Wash only full loads of laundry | 15 to 50 gallons per load |
| **OUTDOOR** | |
| Water your yard only before 8 a.m. to reduce evaporation and interference from wind | 20 gallons per day |
| Install a smart sprinkler controller | 40 gallons per day |
| Use a broom instead of a hose to clean driveways and sidewalks | 150 gallons each time |
| Check your sprinkler system for leaks, overspray and broken sprinkler heads | 500 gallons a month |
| Mulch! Save hundreds of gallons a year by using organic mulch around plants to reduce evaporation. | |

## 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 0.7 to 1.3 mg/L.
- Your average **water hardness** is approximately 258 mg/L or 15 grains/gallon with a range from 60 mg/L to 250 mg/L.

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

## 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.

## 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 0.7 to 1.3 parts per million, as required by the California Department of Public Health. 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.

# 2013 BEVERLY HILLS WATER QUALITY REPORT FROM OUR MWD SOURCES

| Parameter | Units | State or Federal MCL [MRDL] | PHG (MCLG) [MRDLG] | State DLR | Range Average | Source Water: Weymmouth Plant | Source Water: Jensen Plant | Typical Source of Contaminant |
|---|---|---|---|---|---|---|---|---|
| **PRIMARY STANDARDS--Mandatory Health-Related Standards** | | | | | | | | |
| **CLARITY** | | | | | | | | |
| Combined Filter Effluent Turbidity | NTU<br>% | TT = 1<br>TT (a) | NA | NA | Highest<br>% <0.3 | 0.05<br>100% | 0.10<br>100% | Soil runoff |
| **MICROBIOLOGICAL** | | | | | | | | |
| Total Coliform Bacteria (b) | %<br>% | 5.0 | (0) | NA | Range<br>Average | Distrib. System-wide: ND – 0.2<br>Distribution System-wide: ND | | Naturally present in the environment |
| *E. coli* | (c) | (c) | (0) | NA | Average | Distribution System-wide: ND | | Human and animal fecal waste |
| Heterotrophic Plate Count (HPC) (d) | CFU/mL | TT | NA | NA | Range<br>Average | Distribution System-wide: TT<br>Distribution System-wide: TT | | Naturally present in the environment |
| Cryptosporidium | Oocysts/ 200 L | TT | (0) | NA | Range<br>Average | ND<br>ND | ND<br>ND | Human and animal fecal waste |
| *Giardia* | Cysts/ 200 L | TT | (0) | NA | Range<br>Average | ND<br>ND | ND<br>ND | Human and animal fecal waste |
| **INORGANIC CHEMICALS** | | | | | | | | |
| Aluminum (e) | ppb | 1000 | 600 | 50 | Range<br>Average | 95 – 220<br>180 | 67 – 110<br>100 | Residue from water treatment process; natural deposits; erosion |
| Arsenic | ppb | 10 | 0.004 | 2 | Range<br>Average | ND<br>ND | ND<br>ND | Natural deposits erosion, glass and electronics production wastes |
| Barium | ppb | 1000 | 2000 | 100 | Range<br>Average | ND<br>ND | ND<br>ND | Oil and metal refineries discharge; natural deposits erosion |
| Fluoride treatment-related | | Control Range:<br>Optimal Level<br>Range Distribution Wide: | | | | 0.7 – 1.3<br>0.8<br>0.7 – 1.0 | 0.7 – 1.3<br>0.8 | Water additive for dental health |
| Nitrate (as N) (i) | ppm<br>ppm | 10 | 1<br>10 | 0.1<br>0.4 | Range<br>Average | 0.5<br>0.5 | 0.5<br>0.5 | Runoff and leaching from fertilizer use; sewage; natural erosion |
| Nitrite (as Nitrogen) | ppm | 1 | 1 | 0.4 | Range<br>Average | ND<br>ND | ND<br>ND | Runoff and leaching from fertilizer use; sewage; natural erosion |
| **RADIOLOGICALS (i)** | | | | | | | | |
| Gross Alpha Particle Activity | pCi/L | 15 | (0) | 3.0 | Range<br>Average | ND – 3<br>ND | ND<br>ND | Erosion of natural deposits |
| Gross Beta Particle Activity (m) | pCi/L | 50 | (0) | 4.0 | Range<br>Average | ND – 6<br>4 | ND – 4<br>ND | Decay of natural and man-made deposits |
| Uranium | pCi/L | 20 | 0.43 | 1.0 | Range<br>Average | 1 – 2<br>2 | ND – 2<br>1 | Erosion of natural deposits |
| **DISINFECTION BY-PRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BY-PRODUCTS PRECURSORS (k)** | | | | | | | | |
| Total Trihalomethanes (TTHM) (p) | ppb | 80 | NA | 1.0 | Range<br>Average | 33 – 46<br>40 | 9.1 – 55<br>22 | By-product of drinking water chlorination |
| Total Trihalomethanes (TTHM) (p,q) | ppb | 80 | NA | 0.5 | Range<br>Average | 34 – 58<br>56 | 12 – 24<br>17 | By-product of drinking water chlorination |
| Total Trihalomethanes (TTHM) (p,r) | ppb | 80 | NA | 0.5 | Range<br>Highest RAA | Distrib. System-wide: 12 – 60<br>Distrib. System-wide: 58 | | By-product of drinking water chlorination |
| Haloacetic Acids (five) (HAA5) (s) | ppb | 60 | NA | 1 | Range<br>Average | 4.6 – 17<br>11 | 1.9 – 3.8<br>3.0 | By-product of drinking water chlorination |
| Haloacetic Acids (five) (HAA5) (q,s) | ppb | 60 | NA | 1 | Range<br>Average | 4.8 – 19<br>16 | 1.8 – 5.8<br>3.8 | By-product of drinking water chlorination |
| Haloacetic Acids (five) (HAA5) (r,s) | ppb | 60 | NA | 1 | Range<br>Highest RAA | Distrib. System-wide: ND – 22<br>Distrib. System-wide: 18 | | By-product of drinking water chlorination |
| Total Chlorine Residual | ppm | [4.0] | [4.0] | NA | Range<br>Highest RAA | Distrib. System-wide: ND – 2.9<br>Distrib. System-wide: 2.3 | | Drinking water disinfectant added for treatment |
| Bromate (t) | ppb | 10 | 0.1 | 5.0 | Range<br>Highest RAA | NA<br>NA | 3.9 – 13<br>7.6 | By-product of drinking water ozonation |
| DBP Precursors Control (TOC) | ppm | TT | NA | 0.30 | Range<br>Average | TT<br>TT | TT<br>TT | Various natural and man-made sources |

# 2013 BEVERLY HILLS WATER QUALITY REPORT FROM OUR MWD SOURCES (CONTINUED)

| Parameter | Units | State or Federal MCL [MRDL] | PHG (MCLG) [MRDLG] | State DLR | Range Average | Source Water: Weymmouth Plant | Source Water: Jensen Plant | Typical Source of Contaminant |
|---|---|---|---|---|---|---|---|---|
| **SECONDARY STANDARDS--Aesthetic Standards** | | | | | | | | |
| Aluminum (e) | ppb | 200 | 600 | 50 | Range<br>Average | 95 – 220<br>180 | 67 – 110<br>100 | Residue from water treatment process; natural deposits erosion |
| Chloride | ppm | 500 | NA | NA | Range<br>Average | 84 – 91<br>88 | 75 – 77<br>76 | Runoff/leaching from natural deposits; seawater influence |
| Color | Units | 15 | NA | NA | Range<br>Average | 1<br>1 | 1 – 2<br>2 | Naturally occurring organic materials |
| Odor Threshold (u) | TON | 3 | NA | 1 | Range<br>Average | 3 – 6<br>4 | 3<br>3 | Naturally occurring organic materials |
| Specific Conductance | µS/cm | 1600 | NA | NA | Range<br>Average | 850 – 890<br>870 | 520 – 540<br>530 | Substances that form ions in water; seawater influence |
| Sulfate | ppm | 500 | NA | 0.5 | Range<br>Average | 170 – 190<br>180 | 44 – 51<br>48 | Runoff/leaching from natural deposits; industrial wastes |
| Total Dissolved Solids (TDS) | ppm | 1000 | NA | NA | Range<br>Average | 520 – 540<br>530 | 280 – 300<br>290 | Runoff/leaching from natural deposits; seawater influence |
| Turbidity (a) | NTU | 5 | NA | NA | Range<br>Average | ND<br>ND | ND<br>ND | Soil runoff |
| **OTHER PARAMETERS** | | | | | | | | |
| **MICROBIOLOGICAL** | | | | | | | | |
| HPC (d) | CFU/mL | TT | NA | NA | Range<br>Average | ND – 1<br>ND | ND – 1<br>ND | Naturally present in the environment |
| **CHEMICAL** | | | | | | | | |
| Alkalinity | ppm | NA | NA | NA | Range<br>Average | 76 – 130<br>110 | 77 – 93<br>84 | |
| Boron | ppb | NL=1000 | NA | 100 | Range<br>Average | 150<br>150 | 160<br>160 | Runoff/leaching from natural deposits; industrial wastes |
| Calcium | ppm | NA | NA | NA | Range<br>Average | 56 – 61<br>58 | 22 – 26<br>24 | |
| Chlorate | ppb | NA | NL=800 | 20 | Range<br>Range | 62<br>Distrib. System-wide: 28 – 72 | 25 | By-product of drinking water chlorination; industrial processes |
| Chromium VI (w) | ppb | NA | 0.02 | 1 | Range<br>Average | ND<br>ND | ND<br>ND | Industrial waste discharge; could be naturally present as well |
| Corrosivity (x) (as Aggressiveness Index) | AI | NA | NA | NA | Range<br>Average | 12.3<br>12.3 | 12.0<br>12.0 | Elemental balance in water; affected by temperature, other factors |
| Corrosivity (y) (as Saturation Index) | SI | NA | NA | NA | Range<br>Average | 0.35 – 0.45<br>0.40 | 0.20 – 0.21<br>0.20 | Elemental balance in water; affected by temperature, other factors |
| Hardness | ppm | NA | NA | NA | Range<br>Average | 230 – 250<br>240 | 110 – 120<br>110 | |
| Magnesium | ppm | NA | NA | NA | Range<br>Average | 21 – 23<br>22 | 12<br>12 | |
| pH | pH Units | NA | NA | NA | Range<br>Average | 8.1<br>8.1 | 8.2 – 8.4<br>8.3 | |
| Potassium | ppm | NA | NA | NA | Range<br>Average | 4.0 – 4.3<br>4.2 | 2.6 – 2.7<br>2.6 | |
| Sodium | ppm | NA | NA | NA | Range<br>Average | 79 – 85<br>82 | 57 – 60<br>58 | |
| TOC | ppm | TT | NA | 0.30 | Range<br>Average | 2.1 – 2.7<br>2.4 | 1.8 – 2.0<br>1.9 | Various natural and man-made sources; TOC as a medium for the formation of disinfection by-products |
| Vanadium | ppb | NL=50 | NA | 3 | Range<br>Average | 3.0<br>3.0 | 3.2<br>3.2 | Naturally occurring; industrial waste discharge |
| N-Nitrosodimethylamine (NDMA) | ppt | NL=10 | 3 | 2 | Range<br>Range | ND<br>Distrib. System-wide: ND – 11 | ND | By-product of drinking water chlorination; industrial processes |

## 2013 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 | | Typical Source of Contaminant |
|---|---|---|---|---|---|---|---|---|---|
| **PRIMARY STANDARDS--Mandatory Health-Related Standards** | | | | | | | | | |
| **MICROBIOLOGICAL** | | | | | | | | | |
| Total Coliform Bacteria (ad) | 2013 | 0 | % | 5.0 (ad,b) | (0) | NA | Range<br>Average | 0%<br>0% | Naturally present in the environment |
| *E. coli* (ad) | 2013 | 0 | | | (0) | NA | Range<br>Average | 0%<br>0% | Human and animal fecal waste |
| Heterotrophic Plate Count (HPC) (ae) | 2013 | 0 | CFU/mL | TT | NA | NA | Range<br>Average | TT<br>TT | Naturally present in the environment |
| **INORGANIC CHEMICALS** | | | | | | | | | |
| Fluoride Treated-Related | 2013 | 0 | ppm | 2 | 1 | 0.1 | Range<br>Average | 0.65 – 1.02<br>0.82 | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Arsenic | 2013 | 0 | ppb | 10 | 0.004 | 2 | Range<br>Average | ND – 7.17<br>3.60 | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes |
| **SECONDARY STANDARDS--Aesthetic Standards** | | | | | | | | | |
| Chloride | 2013 | 0 | ppm | 500 | NA | NA | Range<br>Average | 33.5 – 90.2<br>68.67 | Runoff/leaching from natural deposits; seawater influence |
| Manganese | 2013 | 0 | ppb | 50 | NL = 500 | 20 | Range<br>Average | 4.62 – 20.70<br>9.83 | Leaching from natural deposits |
| Sulfate | 2013 | 0 | ppm | 500 | NA | 0.5 | Range<br>Average | 55.8 – 145.0<br>104.1 | Runoff/leaching from natural deposits; industrial wastes |
| Total Dissolved Solids (TDS) | 2013 | 0 | ppm | 1000 | NA | NA | Range<br>Average | 216 – 421<br>337.9 | Runoff/leaching from natural deposits; seawater influence |
| Sodium | 2011 | 0 | ppm | NA | NA | NA | Range<br>Average | 92.2 – 295<br>161.5 | Salt present in the water and is generally naturally occurring |
| Hardness | 2011 | 0 | ppm | NA | NA | NA | Range<br>Average | 210 – 296<br>258 | Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring |

## 2013 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 | | Typical Source of Contaminant |
|---|---|---|---|---|---|---|---|---|
| Total Coliform Bacteria (ad) | 2013 | 0 | % | 5.0 (ad,b) | NA | Range<br>Average | ND – 1.7<br>0.001 | Naturally present in the environment |
| Turbidity (Weekly) (System) (a) | 2013 | 0 | NTU | 5 | NA | Range<br>Average | 0.07 – 0.97<br>0.12 | Soil runoff |
| Color | 2013 | 0 | Units | 15 | NA | Range<br>Average | 0 – 1<br>0.02 | Naturally occurring organic material |
| Chlorine Residual (Weekly) (System) RAA | 2013 | 0 | ppm | 4 | 4 | Range<br>Highest RAA | 0.30 – 2.30<br>1.64 | Disinfectant added for treatment |
| Fluoride (Weekly) (System) (aa) | 2013 | 0 | ppm | 2 | Control Range<br>Optimal Level<br>1 | Range<br>Average | 0.7 – 1.3<br>0.8<br>0.75 – 1.12<br>0.87 | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Total Trihalomethanes (TTHM) (ab,l) | 2013 | 0 | ppb | 80 | NA | Range<br>Highest RAA | 16.2 – 63.2<br>39.18 | By-products of drinking water disinfection |
| Haloacetic Acids (five) (HAA5) (ab,m) | 2013 | 0 | ppb | 60 | NA | Range<br>Highest RAA | 3.09 – 24.70<br>11.77 | By-products of drinking water disinfection |
| Nitrite as N | 2013 | 0 | ppm | 1 | 1 | Range<br>Average | ND – 0.0766<br>0.0032 | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits |
| Odor | 2013 | 0 | TON | 3 | NA | Range<br>Average | ND<br>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) | 2011 | 32 | ppb | 1300 | 300 | 129 | 0 | NO | Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Lead (af) | 2011 | 32 | ppb | 15 | 0.2 | 3.84 | 1 | NO | Internal corrosion of household plumbing systems; discharges from industrial manufacturers; erosion of natural deposits |

*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. On several occasions from January 2011 through March 2014 we failed to maintain 4-log treatment for viruses (Table 1) and did not monitor or test for various contaminants (Table 2), and therefore, cannot be sure of the quality of our drinking water during that time.*

## TABLE 1: VIOLATION OF PERMIT CONDITIONS FOR THE 4-LOG VIRUS INACTIVATION TREATMENT

| Violation | Explanation | Duration | Actions Taken to Correct the Violation | Health Effects Language |
|---|---|---|---|---|
| Failed to maintain 4-log treatment of viruses | Per our permit the City must maintain at least 1.25 mg/L of free chlorine residual at all times from the Reverse Osmosis Water Treatment Plant. The City failed to maintain the minimum free chlorine residual on several occasions from January 2011 through March 2013. | There were 42 incidents when the chlorine residuals at the free chlorine sampling point (compliance point) dropped to below 1.25 mg/L. | SCADA (Supervisory Control and Data Acquisition) has been programmed to have the discharge pump shut down if the free chlorine residual measured 1.30 mg/L or less and 3.0 mg/L or higher ensuring no release of non-compliant water. | Inadequately protected or treated water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches. |

## TABLE 2: VIOLATION OF MONITORING AND REPORTING REQUIREMENT

| Violation | Explanation | Duration | Actions Taken to Correct the Violation | Health Effects Language |
|---|---|---|---|---|
| Failure to collect the required fluoride sample in the distribution system. | On February 9, 2014 the City failed to collect the required fluoride sample from 231 S Gale Drive. | 1 Day | New procedures have been implemented - In addition to entering sampling results on the bench sheets the information is also input into an electronic data base. Each operator emails to all other operators, supervisors, Water Quality Specialist, and the Water Operation Manager upon the completion of each shift. | Health Effects Unknown |
| Failure to collect the required weekly samples from the Reverse Osmosis Water Treatment Plant. | During the week of March 10, 2014, no samples were collected from the treatment plant. The samples for total coliform, heterotrophic count, arsenic, manganese, total dissolved solids, hydrogen sulfide, fluoride, chloride and sulfate were not collected. | 1 Week | New procedures have been implemented - Supervisors sign off on all sampling Chain of Custody reports. New sample tracking software has been implemented. | Health Effects Unknown |
| Failure to collect Synthetic Organic Chemicals samples (SOCs) for the monitoring period of 2011 - 2013. | The City failed to collect the required di(2-ethylhexyl) phthalate & throbencarb samples from the 4 wells for the monitoring period of 2011 - 2013. The monitoring for these chemicals consists of two consecutive quarterly samples every 3 years. | Three Years | Complete 2014 - 2017 Required Sampling. On June 10, 2014 the City collected the first quarter samples for di(2-ethylhexyl) phthalate & throbencarb from the four active wells. The second quarter samples will be collected in September 2014. New procedures that ensure that all Title 22 compliance samples will be collected by a qualified operator and reviewed by the Water Quality Specialist. | Health Effects Unknown |
| Failure to monitor Well 5 for color on quarterly basis following the MCL exceedance in August 2011. | The City failed to collect and process the required quarterly color samples from Well 5 following the MCL exceedance in August 2011. Once notified by the California Department of Public Health (CDPH) in December of 2012, the City again failed to collect the quarterly samples. | 4 Quarters | The City sampled Well 5 for color on June 10, 2014. Subsequent samples will be collected in September 2014 and quarterly thereafter until further advised by CDPH. | Health Effects Unknown |

## 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.

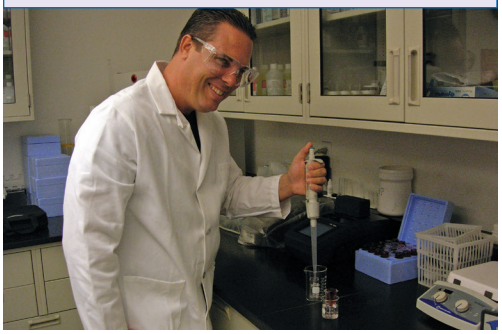
4. **Maximum Residual Disinfectant Level (MRDL):** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

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 2013, 7,981 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) Aluminum, copper, MTBE, and thiobencarb have both primary and secondary standards.

(f) MTBE was not detected at Metropolitan's reporting level of 0.5 ppb, which is below the state DLR of 3 ppb.

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

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

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

(j) State MCL is 45 mg/L as nitrate, which is the equivalent of 10 mg/L as N.

(k) Perchlorate was not detected at Metropolitan's reporting level of 2 ppb, which is below the state DLR of 4 ppb.

(l) Data are from samples collected (triennially) during four consecutive quarters of monitoring in 2011 and reported for three years until the next samples are collected.

(m) CDPH considers 50 pCi/L to be the level of concern for beta particles; the gross beta particle activity MCL is 4 millirem/year annual dose equivalent to the total body or any internal organ.

(n) State MCL is 5 pCi/L for combined radium-226 and -228.

(o) Metropolitan was in compliance with all provisions of the Stage 2 Disinfectants and Disinfection By-Products Rules (D/DBPR).

(p) Metropolitan reporting level is 0.5 ppb for each of the trihalomethanes (bromodichloromethane, bromofrom, chloroform, and dibromochloromethane) which is lower than the state DLR of 1.0 ppb.

(q) Compliance was based on the highest Locational Running Annual Average (LRAA) of all data collected at the treatment plant specific core monitoring locations.

(r) Compliance was based on the highest Locational Running Annual Average (LRAA) of all data collected at the distribution system-wide monitoring locations.

(s) State DLR is 1.0 ppb for each of the following: dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid; and 2.0 ppb for monochloroacetic acid.

(t) Metropolitan used EPA method 326.0 which has a state DLR of 1.0 ppb. Compliance was based on the RAA.

(u) In April 2013, the Weymouth plant effluent TON exceeded the secondary MCL of 3 TON. Per CDPH requirements, quarterly monitoring was conducted following the secondary MCL exceedance.

(v) Data were collected from February 2009 to August 2009 and reported per UCMR guidance. Minimum reporting levels are stipulated in the Federal UCMR 2. List 1 - Assessment Monitoring consists of 10 chemical contaminants for which standard analytical methods were available. List 2 - Screening Survey consists of 15 contaminants for which new analytical methods were used. All analyses conducted by contract laboratories. Values listed in state DLR column are federal minimum reporting levels.

(w) Metropolitan's chromium VI reporting level is 0.03 ppb, which is below the state DLR of 1 ppb. Annual treatment plant effluent concentrations were 0.15 ppb for Weymouth and 0.12 ppb for Jensen.

(x) AI < 10.0 = Highly aggressive and very corrosive water; AI ≥ 12.0 = Non-aggressive water; AI (10.0 – 11.9) = Moderately aggressive water

(y) 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 2013, the City received fluoridated water from MWD the City's reverse osmosis water treatment plant.

(ab) In 2013, City of Beverly Hills was in compliance with all provisions of the Stage 2 Disinfectant/ Disinfection and By-Products (D/DBP) Rule.

(ac) In 2013, 730 samples were analyzed for total coliform bacteria. 1 positive coliform result occurred in 2013. All repeat and confirmative samples were absent for coliform.

(ad) Total Coliform Bacteria and E.Coli tests were performed weekly on reverse osmosis plant effluent samples. In 2013, 32 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.

(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.

# ABBREVIATIONS

| | | | | | |
|---|---|---|---|---|---|
| AI | Aggressiveness Index | MPN | Most Probable Number | ppm | parts per million or milligrams per liter (mg/L) |
| AL | Action Level | MRDL | Maximum Residual Disinfectant Level | ppq | parts per quadrillion or picograms per liter (pg/L) |
| CFU/mL | Colony-Forming Units per Milliliter | MRDLG | Maximum Residual Disinfectant Level Goal | ppt | parts per trillion or nanograms per liter (ng/L) |
| DCPA | Dimethyl Tetrachloroterephthalate | N | Nitrogen | RAA | Running Annual Average |
| DBP | Disinfection By-Products | NA | Not Applicable | SI | Saturation Index (Langelier) |
| DLR | Detection Limits for purposes of Reporting | ND | None Detected | TOC | Total Organic Carbon |
| HAA5 | Haloacetic Acids (five) | NL | Notification Level | TON | Threshold Odor Number |
| LRAA | Locational Running Annual Average | NTU | Nephelometric Turbidity Units | TTHM | Total Trihalomethanes |
| MBAS | Methylene Blue Active Substances | pCi/L | picoCuries per Liter | TT | Treatment Technique |
| MCL | Maximum Contaminant Level | PHG | Public Health Goal | µS/cm | microSiemen per centimeter; |
| MCLG | Maximum Contaminant Level Goal | ppb | parts per billion or | | also equivalent to µmho/cm (micromho per centimeter) |
| MFL | Million Fibers per Liter | | micrograms per liter (µg/L) | µg/L | microgram per liter or parts per billion |

## 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.

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