	ABBREVIATIONS										
Al	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.



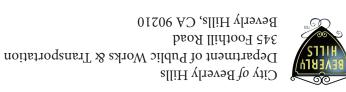
Large fluctuations in use can indicate leaks. Water use is measured in units called Ccf, which stands for 100 cubic feet. One Ccf of water equals 748 gallons of water. The typical household in Beverly Hills uses 70 Ccf of water per billing cycle.

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 & Transportation, 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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# Beverly Hills

Partners in Environmental Protection • • • • • • • •





2012 Consumer Confidence Report

#### LETTER FROM THE DIRECTOR

The City of Beverly Hills Public Works and Transportation Department is pleased to present you with the 2012 Consumer Confidence Report (formerly known as the Water Quality Report). This report informs you, our valued customers, about the City's water sources and water quality programs. In this report, you will find tables listing the substances in the water that were tested. In addition, this report shows how the City is protecting your water resources through conservation and providing the highest quality water.

The California Department of Public Health requires all water providers to publish the results of water quality tests for all detected components from the previous year. State regulations also mandate water providers demonstrate a full faith effort in distributing this report to all of their customers – that is why you are receiving this report by mail. Copies of this report are also available in the Library, City Hall, the Public Works Building, and on the City's website at <a href="https://www.beverlyhills.org">www.beverlyhills.org</a>.

Please read this report, and if you have any questions or comments, do not hesitate to call us at (310) 285-2467.

Sincerely,

FOR Mahdi Aluzri

City of Beverly Hills

Assistant City Manager/Acting Director of Public Works & Transportation

Chi Thi

#### **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

 $\begin{tabular}{ll} Fluoridation: Center for Disease Control\\ www.cdc.gov/OralHealth \end{tabular}$ 

#### THE 2012 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 Kevin Watson, Water Operations Manager, 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 8:30 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 2012 includes residents Peter Foldvary, M.D., Farshid "Joe" Shoshani, Barry D. Pressman, M.D., Ron Shalowitz and Steven Weinglass.

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.

ایناطلاعیه شامل اطلاعات مهمی راجع به آب آ شامیدنی است. اگر نمیتوانید این اطلاعات را بزبان انگلیسی

بخوانیدلطفاازکسیکهمیتواندیاریبگیریدتا مطالبرابرایشمابهفارسی ترجمهکند.

#### WATER CONSERVATION TABLE

(COURTESY OF WWW.BEWATERWISE.COM)

(COOKIEST OF WWW.BEWATERWI	JE.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 organ to reduce evaporation.	nic mulch around plants

# VIOLATION OF A MCL, MRDL, AL, OR MONITORING AND REPORTING REQUIREMENT Violation Explanation Duration Correct Violation 6 positive coliform results occurred in December 2012. As you were previously notified, the MCL was samples were absent for an indicator that other, potentially-harmful, bacteria may be present. Coliforms were

coliform.

Dec-12

	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			
									Internal corrosion of household plumbing			
									systems; erosion of natural deposits;			
Copper (f,af)	2011	32	ppb	1300	300	129	0	NO	leaching from wood preservatives			
									Internal corrosion of household plumbing			
									systems; discharges from industrial			
Lead (af)	2011	32	ppb	15	0.2	3.84	1	NO	manufacturers; erosion of natural deposits			

#### **DEFINITIONS**

violated in the month of December.

Bacteria

- 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.
- Maximum Residual Disinfectant Level (MRDL):
   The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.
- 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.
- 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.
- Regulatory Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.



#### **FOOTNOTES**

found in more samples than allowed and this was a warning of potential problems.

- As a Primary Standard, the turbidity levels of the filtered water were less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1 NTU at any time. Turbidity is a measure of the cloudiness of the water and is an indicator of treatment performance. The turbidity levels for grab samples at these locations were in compliance with the Secondary Standard. Per 2012 Consumer Confidence Report Guidance, the state DLR for turbidity is 0.1 NTU.
- (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. In 2012, 8,037 samples were analyzed and two samples were coliform positive. 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.
- As a wholesaler, Metropolitan is not required to collect samples at the consumers' tap under the Lead and Copper Rule.
- h) Metropolitan was in compliance with all provisions of the State's Fluoridation System Requirements.
- (i) State MCL is 45 mg/L as nitrate, which equals 10 mg/L as N.
- (j) Perchlorate was not detected at Metropolitan's reporting level of 2 ppb, which is below the state DLR of 4 ppb.
- (k) Date are from samples collected (triennially) during four consecutive quarters of monitoring in 2011 and reported for three years until the next samples are collected.
- 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.
- (m) State MCL is 5 pCi/L for combined radium-226 and -228.
- (n) Metropolitan was in compliance with all provisions of the Stage 1 and Stage 2 Disinfectants and Disinfection By-Products Rules (D/DBPR). Stage 2 D/DBPR monitoring began in the 2nd quarter of 2012. Compliance was based on the RAA.
- (o) Metropolitan's 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.
- (p) 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.
- (q) Metropolitan used EPA method 326.0 which has a state DLR of 1.0 ppb. Compliance was based on the RAA.
- (r) In May 2012, monitoring frequency for Skinner was reduced from quarterly to annual when RAA returned to <3 TON. Per CDPH requirements, quarterly monitoring was conducted following a secondary MCL exceedance in April 2008.
- (s) 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.
- (t) 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 0.14 ppb for Weymouth, 0.07 ppb for Diemer, 0.08 ppb for Jensen, 0.06 ppb for Skinner and 0.19 ppb for Mills.
- a) AI < 10 = Highly aggressive and very corrosive; AI > 12 = Non-aggressive water;
- AI (10.0 11.9) = Moderately aggressive water
- (v) 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 2012, the City received fluoridated water from MWD and the City's reverse osmosis water treatment plant.
- ab) In 2012, City of Beverly Hills was in compliance with all provisions of the Stage I and Stage 2 Disinfectant/ Disinfection By-Products (D/DBP) Rule.
- (ac) In 2012, 761 samples were analyzed for total coliform bacteria. 7 positive coliform results occurred in 2012. As you were previously notified, the MCL was violated in the month of December. All the 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 2012, 27 samples were analyzed for coliform bacteria. One sample was coliform positive, but the repeat and confirmative sample were absent for coliform.
- (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. If action levels are exceeded in more than 10% of the consumer tap samples, water systems must take steps to reduce these contaminants.

2012 BE	VERLY H	ILLS WATE	R QUAI	ITY REPO	ORT FROM	<b>NEVE</b>	RSE OS	MOSIS W	ATER TREATMENT PLANT
Parameter	Sample Date	No. of Months in Violation	Units	State or Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR		inge erage	Typical Source of Contaminant
PRIMARY STANDA	ARDSMai	ndatory Hea	lth-Relat	ed Standar	ds				
MICROBIOLOGICA	\L								
Total Coliform							Range	0%	
Bacteria (ad)	2012	0	%	5.0 (ad,b)	(0)	NA	Average	0%	Naturally present in the environment
							Range	0%	Sta
E. coli (ad)	2012	0			(0)	NA	Average	0%	Human and animal fecal waste
Heterotrophic Plate							Range	TT	
Count (HPC) (ae)	2012	0	CFU/mL	TT	NA	NA	Average	TT	Naturally present in the environment
<b>INORGANIC CHE</b>	MICALS								
								- 1	Erosion of natural deposits; water additive
Fluoride							Range	0.4 – 1.1	which promotes strong teeth; discharge from
Treated-Related	2012	0	ppm	2	1	0.1	Average	0.74	fertilizer and aluminum factories
							Range	ND - 9.05	Erosion of natural deposits; runoff from orchards;
Arsenic	2012	0	ppb	10	0.004	2	Average	3.4	glass and electronics production wastes
SECONDARY STA	NDARDS	Aesthetic St	andards						
	100		,,,,				Range	14 – 112	Runoff/leaching from natural deposits;
Chloride	2012	0	ppm	500	NA	NA	Average	55.8	seawater influence
	0.	, 0 0			NL =		Range	1.39 – 23.2	
Manganese	2012	0 0	ppb	50	500	20	Average	10.79	Leaching from natural deposits
0 ,			0	0	۰ ,	0 ,	Range	4.5 – 164	Runoff/leaching from natural deposits;
Sulfate	2012	0	ppm	500	NA	0.5	Average	86.9	industrial wastes
Total Dissolved	0						Range	78 – 466	Runoff/leaching from natural deposits;
Solids (TDS)	2012	0	ppm	1000	NA	NA	Average	283	seawater influence
				0		0 0	Range	92.2 – 295	Salt present in the water and is generally
Sodium	2011	0	ppm	NA	NA	NA	Average	161.5	naturally occurring
				0					Sum of polyvalent cations present in the water,
				. (			Range	210 – 296	generally magnesium and calcium, and are
Hardness	2011 °	0	ppm	NA	NA	NA	Average	258	usually naturally occurring

2012 BEVERLY HILLS WATER QUALITY REPORT FOR THE DISTRIBUTION SYSTEM										
Parameters	Sample Date	No. of Months in Violation	Units	State MCL (MRDL)	PHG (MCLG) (MRDL)	Ran Aver		Typical Source of Contaminant		
Turbidity (Weekly)						Range	0.06 - 0.97			
(System) (a)	2012	0	NTU	5	NA	Average	0.11	Soil runoff		
						Range	0 – 2			
Color	2012	0	Units	15	NA	Average	0.03	Naturally occurring organic material		
Chlorine Residual						Range	0.21 – 2.38			
(Weekly) (System) RAA	2012	0	ppm	4	4	Highest RAA	1.74	Disinfectant added for treatment		
					Cont	rol Range	0.7 – 1.3			
					Opti	mal Level	0.8	Erosion of natural deposits; water additive		
Fluoride (Weekly)	A					Range	0.35 – 1.06	which promotes strong teeth; discharge from		
(System) (aa)	2012	0	ppm	2	1	Average	0.81	fertilizer and aluminum factories		
Total Trihalomethanes						Range	10.3 – 79.7			
(TTHM) (ab,l)	2012	0	ppb	80	NA	Highest RAA	49.63	By-products of drinking water disinfection		
Haloacetic Acids (five)						Range	4.0 - 30.40			
(HAA5) (ab,m)	2012	0	ppb	60	NA	Highest RAA	19.64	By-products of drinking water disinfection		
	210 M TER	E. E.						Runoff and leaching from fertilizer use;		
						Range	ND - 0.339	leaching from septic tanks and sewage;		
Nitrite as N	2012	0	ppm	1	1	Average	0.0096	erosion of natural deposits		
						Range	ND			
Odor	2012	0	TON	3	NA	Average	ND	Naturally occurring organic material		

SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA										
Microbiological Contaminants	Highest Percent of Detections	No. Months in Violation	MCL	MCLG	Typical Source of Bacteria					
			MCL: Systems that collect ≥ 40							
			samples/month: more than 5.0%							
Total Coliform Bacteria	6.8	1	of monthly samples are positive	0	Naturally present in the environment					

### 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 140 mg/L or 8.2 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 Kevin Watson, Water Operations Manager at (310) 285-2495.

#### 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.

201	Z BEVEKL		WAIEK	QUA	LIII KEP			WD SOURCES
		State or Federal	PHG			Source \	Vater	
		MCL	(MCLG)	State	Range	Weymmouth	Jensen	
Parameter	Units	[MRDL]	[MRDLG]	DLR	Average	Plant	Plant	Major Sources in Drinking Wate
PRIMARY STANDARDS					and ago			
CLARITY	,							
Combined Filter	NTU	0.3			Highest	0.04	0.06	
Effluent Turbidity	%	95 (a)	NA	NA	% <0.3	100%	100%	Soil runoff
MICROBIOLOGICAL				1				
Total Coliform					Range	Distrib. System-w	ide: ND – 0.5	
Bacteria	%	5.0 (b)	(0)	NA	Average	Distribution System		Naturally present in the environment
	,,,	515 (5)	(-)		- Therage			
E. coli	(c)	(c)	(0)	NA	Average	Distribution System	em-wide: ND	Human and animal fecal waste
Heterotrophic Plate	(6)	(0)	(0)	101	Range	Distribution Syst		Transaria annia recal waste
Count (HPC) (d)	CFU/mL	TT	NA	NA	Average	Distribution Syst		Naturally present in the environment
oount (iii o) (u)	Oocysts/		1471	14/1	Range	ND	ND	Naturally present in the environment
Cryptosporidium (c)	200 L	TT	(0)	NA	_	ND ND	ND ND	Human and animal fecal waste
Cryptosporidium (e)		11	(0)	INA	Average			riuman anu aniina lecai waste
Ciardia (a)	Cysts/		(0)	NIA	Range	ND ND	ND	Human and animal facel win-t-
Giardia (e)	200 L	TT	(0)	NA	Average	ND	ND	Human and animal fecal waste
NORGANIC CHEMICAL	3				Dana	ND 040	60 440	Decidus from water tractions
		4000			Range	ND – 210	60 – 110	Residue from water treatment process;
Aluminum (f)	ppb	1000	600	50	Average	120	83	natural deposits; erosion
					Range	ND	ND	Natural deposits erosion, glass and
Arsenic	ppb	10	0.004	2	Average	ND	ND	electronics production wastes
					Range	ND	ND	Oil and metal refineries discharge;
Barium	ppb	1000	2000	100	Average	ND	ND	natural deposits erosion
			Control F	Range:		0.7 – 1.3	0.7 – 1.3	
Fluoride			Optimal	Level		0.8		
treatment-related (g)			Range Distrib	ution Wid	e:	0.4 – 1	.1	Water additive for dental health
	ppm		1	0.1	Range	ND - 0.4	0.4 - 0.5	Runoff and leaching from fertilizer use;
Nitrate (as N) (h)	ppm	10	10	0.4	Average	ND	0.4	sewage; natural erosion
					Range	ND	ND	Runoff and leaching from fertilizer use;
Nitrite (as Nitrogen)	ppm	1	1	0.4	Average	ND	ND	sewage; natural erosion
RADIOLOGICALS (i)								
Gross Alpha					Range	ND – 3	ND	
Particle Activity	pCi/L	15	(0)	3.0	Average	ND	ND	Erosion of natural deposits
Gross Beta					Range	ND – 6	ND – 4	
Particle Activity (j)	pCi/L	50	(0)	4.0	Average	4	ND	Decay of natural and man-made deposits
					Range	1 – 2	ND – 2	
Uranium	pCi/L	20	0.43	1.0	Average	2	1	Erosion of natural deposits
DISINFECTION BY-PROD	OUCTS, DISINF	ECTANT RE	SIDUALS, A	AND DIS	INFECTION	BY-PRODUCTS	PRECURSOR	S (k)
Total Trihalomethanes					Range	42 – 48	8.0 – 19	
(TTHM) (I)	ppb	80	NA	1	Average	45	11	By-product of drinking water chlorination
Total Trihalomethanes					Range	Distrib. System-v	vide: 7.6 – 70	
(TTHM) (I)	ppb	80	NA	1	Highest RAA	Distrib. Syster	n-wide: 35	By-product of drinking water chlorination
Haloacetic Acids (five)	**				Range	12 – 18	1.1 – 3.2	-
(HAA5) (m)	ppb	60	NA	1	Average	14	2.2	By-product of drinking water chlorination
Haloacetic Acids (five)	FF**				Range	Distrib. System-v		J. J. T.
(HAA5) (m)	ppb	60	NA	1	Highest RAA	Distrib. Syster		By-product of drinking water chlorination
(· · · · · · · · · /	PPD	- 00	177	<del>- '</del>	Range	Distrib. System-w		Drinking water disinfectant added for
Total Chlorine Residual	ppm	[4.0]	[4.0]	NA	Highest RAA	Distrib. System-w		treatment
Total Officiale (Nesidual	ρριιι	[7.0]	[7.0]	14/4		-	3.7 – 6.9	a saution
Promoto (n)	nnh	10	(0)	5.0	Range	NA NA		By product of dripking water accretic-
Bromate (n)	ppb	10	(0)	5.0	Highest RAA	NA TT	5.2	By-product of drinking water ozonation
DBP Precursors Control					Range	TT	TT	Mark and the second of
(TOC)	ppm	TT	NA	0.30	Average	TT	TT	Various natural and man-made sources

2012 BEVE	RLY HIL	LS WAT	ER QUA	LITY F	REPORT F	ROM OUR	MWD S	OURCES (CONTINUED)
		State or				Source Water		
		Federal	PHG					
		MCL	(MCLG)	State	Range	Weymmouth	Jensen	
Parameter	Units	[MRDL]	[MRDLG]	DLR	Average	Plant	Plant	Major Sources in Drinking Water
SECONDARY STANDARDS-	-Aesthetic	Standards	I.	ı			1	
					Range	ND – 210	60 – 110	Residue from water treatment process;
Aluminum (f)	ppb	200	600	50	Average	120	83	natural deposits erosion
					Range	85 – 95	50 – 63	Runoff/leaching from natural deposits;
Chloride	ppm	500	NA	NA	Average	90	56 1 – 2	seawater influence
Color	Units	15	NA	NA	Range	1 1	2	Naturally occurring organic materials
Color	Offics	13	INA	INA	Average Range	2	2	INACTION OF THE PROPERTY OF TH
Odor Threshold (o)	TON	3	NA	1	Average	2	2	Naturally occurring organic materials
(0)				•	Range	350 – 930	400 – 500	Substances that form ions in water;
Specific Conductance	μS/cm	1600	NA	NA	Average	740	440	seawater influence
	1				Range	130 – 160	46 – 50	Runoff/leaching from natural deposits;
Sulfate	ppm	500	NA	0.5	Average	140	48	industrial wastes
					Range	450 – 490	240 – 280	Runoff/leaching from natural deposits;
Total Dissolved Solids (TDS)	ppm	1000	NA	NA	Average	470	260	seawater influence
					Range	ND	ND - 0.1	
Turbidity (a)	NTU	5	NA	NA	Average	ND	ND	Soil runoff
OTHER PARAMETERS								
MICROBIOLOGICAL								
					Range	ND – 1	ND	
HPC (d)	CFU/mL	TT	NA	NA	Average	ND	ND	Naturally present in the environment
CHEMICAL			I				I	
					Range	61 – 120	72 – 93	
Alkalinity	ppm	NA	NA	NA	Average	95	79	
				400	Range	130	170	Runoff/leaching from natural deposits;
Boron	ppb	NL=1000	NA	100	Highest RAA	130	170	industrial wastes
Calcium		NIA	NIA	NIA.	Range	45 – 48	23 – 24	
Calcium	ppm	NA	NA	NA	Average Range	46 66	24 ND	By-product of drinking water chlorination;
Chlorate (t)	ppb	NL=800	NA	20	Range	Distrib. System-w		industrial processes
Chlorate (t)	ррь	14L-000	INA	20	Range	ND	ND	Industrial waste discharge; could be
Chromium VI (p)	ppb	NA	0.02	1	Average	ND	ND	naturally present as well
Corrosivity (q)	ppo		0.02	•	Range	12.1	11.9 – 12.0	Elemental balance in water; affected
(as Aggressiveness Index)	Al	NA	NA	NA	Average	12.1	12.0	by temperature, other factors
Corrosivity (r)					Range	0.24 - 0.32	0.19 - 0.22	Elemental balance in water; affected
(as Saturation Index)	SI	NA	NA	NA	Average	0.28	0.20	by temperature, other factors
					Range	80 – 270	98 – 110	
Hardness	ppm	NA	NA	NA	Average	200	100	
					Range	19 – 20	11	
Magnesium	ppm	NA	NA	NA	Average	20	11	
	pН				Range	7.9 - 8.6	7.9 – 8.4	
pH	Units	NA	NA	NA	Average	8.1	8.3	
					Range	3.7 – 4.1	2.3 – 2.5	
Potassium	ppm	NA	NA	NA	Average	3.9	2.4	
O o d'a su					Range	74 – 82	43 – 53	
Sodium	ppm	NA	NA	NA	Average	78	48	
TOC			A LA	0.00	Range	1.8 – 2.6	1.7 – 2.1	Various patruol and more models as
TOC	ppm	TT	NA	0.30	Average	2.3 ND	1.9 ND	Various natural and man-made sources
Vanadium	nnh	NIA	NI -FO	2	Range	ND ND	ND ND	Naturally occurring; industrial waste
Vanadium  N-Nitrosodimethylamine (s)	ppb	NA	NL=50	3	Average	ND – 2.5	ND – 2.0	discharge  By-product of drinking water chlorination;
N-Nitrosodimethylamine (s) (NDMA)	nnt	NL=10	3	2	Range	ND – 2.5 Distrib. System-w		industrial processes
FEDERAL UNREGULATED CO	ppt				Range	שיייפוע. System-w	IUC. ND - 0./	Industrial processes
LIST 2 - SCREENING SURV		ANI MONII	CKING KU	EL (UCIV	IK Z			
N-Nitrosodimethylamine	-1				Range	ND - 0.003	ND - 0.005	By-product of drinking water chlorination;
(NDMA) (s)	ppb	NA	NA	.002	Average	ND = 0.003 ND	0.003	industrial processes
V ::::: 7 V=1							3.550	