



Agenda Item #: 07/0918.13

# Staff Report

## City of Manhattan Beach

**TO:** Honorable Mayor Aldinger and Members of the City Council

**THROUGH:** Geoff Dolan, City Manager *GD*

**FROM:** Jim Arndt, Director of Public Works *JAA*  
Clarence Van Corbach, Utilities Manager

**DATE:** September 18, 2007

**SUBJECT:** Consideration of the Required 2006 Water Quality Report on Public Health Goals:  
a) CONDUCT PUBLIC HEARING  
b) APPROVE

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### RECOMMENDATION:

Staff recommends that a public hearing be held and that the City Council receives, approves and files this report as it is a requirement of the California Public Safety Code. The drinking water quality of Manhattan Beach meets all State of California, Department of Health Services and USEPA drinking water standards set to protect public health.

### FISCAL IMPACT:

No fiscal impact is foreseen at this time.

### BACKGROUND:

Public water systems serving more than 10,000 service connections must prepare a brief, written report by July, 2007 (attached) that gives information on the detection of any contaminants above the Public Health Goals (PHG) published by the State Office of Environmental Health Hazard Assessment. From the federal perspective, the City must also list any contaminants above the Maximum Contaminant Level Goals (MCLG) set by the USEPA.

It should be noted that PHB's and MCLG's are goals that provide information. They should not be considered the same as Maximum Contaminant Levels (MCL's), which are enforceable mandatory limits. Contaminants that exceed MCL's must be removed from the water, or the supply be eliminated.

Manhattan Beach does not have any contaminants that exceed established MCL's.

Because the City does exceed PHG's and MCLG's in copper and lead, the City is required to prepare this report, hold a public hearing, and accept and respond to public comments. After the public hearing is held, the City will report to the California Department of Health Services (CDHS) the findings and note their acceptance of the report and public comments.

The exceedances that the City has experienced are in lead and copper and are a result of older plumbing pipe and fixtures in older homes and are not present in the overall City delivery system.

**DISCUSSION:**

The attached Water Quality Report defines and discusses results of water testing and the relationship to water quality.

Attachment: 2006 Annual Water Quality Report

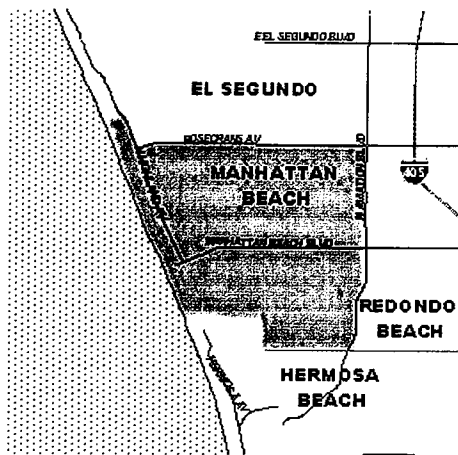
# CITY OF MANHATTAN BEACH

## 2006 ANNUAL WATER QUALITY REPORT

13

Since 1991, California water utilities have been providing information on water served to its consumers. This report is a snapshot of the tap water quality that we provided last year. Included are details about where your water comes from, how it is tested, what is in it, and how it compares with state and federal limits. We strive to keep you informed about the quality of your water, and to provide a reliable and economic supply that meets all regulatory requirements.

### Where Does My Tap Water Come From?



Your tap water comes from 2 sources: groundwater and surface water. We pump groundwater from local, deep wells. We also use Metropolitan Water District of Southern California's (MWD) surface water from both the Colorado River and the State Water Project in northern California. These water sources supply our service area shown on the adjacent map. The quality of our groundwater and MWD's surface water supplies is presented in this report.

### How is My Drinking Water Tested?

Your drinking water is tested regularly for unsafe levels of chemicals, radioactivity and bacteria at the source and in the distribution system. We test weekly, monthly, quarterly, annually or less often depending on the substance. State and federal laws allow us to test some substances less than once per year because their levels do not change frequently. All water quality tests are conducted by specially trained technicians in state-certified laboratories.

### What Are Drinking Water Standards?

The U.S Environmental Protection Agency (USEPA) limits the amount of certain substances allowed in tap water. In California, the State Department of Health Services (Department) regulates tap water quality by enforcing limits that are at least as stringent as the USEPA's. Historically, California limits are more stringent than the Federal ones.

There are two types of these limits, known as standards. Primary standards protect you from substances that could potentially affect your health. Secondary standards regulate substances that affect the aesthetic qualities of water. Regulations set a Maximum Contaminant Level (MCL) for each of the primary and secondary standards. The MCL is the highest level of a substance that is allowed in your drinking water.

Public Health Goals (PHGs) are set by the California Environmental Protection Agency. PHGs provide more information on the quality of drinking water to customers, and are similar to their federal counterparts, Maximum Contaminant Level Goals (MCLGs). PHGs and MCLGs are advisory levels that are nonenforceable. Both PHGs and MCLGs are concentrations of a substance below which there are no known or expected health risks.

### How Do I Read the Water Quality Table?

Although we test for over 100 substances, regulations require us to report only those found in your water. The first column of the water quality table lists substances detected in your water. The next columns list the average concentration and range of concentrations found in your drinking water. Following are columns that list the MCL and PHG or MCLG, if appropriate. The last column describes the likely sources of these substances in drinking water.

To review the quality of your drinking water, compare the highest concentration and the MCL. Check for substances greater than the MCL. Exceedence of a primary MCL does not usually constitute an immediate health threat. Rather, it requires testing the source water more frequently for a short duration. If test results show that the water continues to exceed the MCL, the water must be treated to remove the substance, or the source must be removed from service.

### Why Do I See So Much Coverage in the News About the Quality Of Tap Water?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, including viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems;
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the Department prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791). You can also get more information on tap water by logging on to these helpful web sites:

- [www.epa.gov/OGWDW](http://www.epa.gov/OGWDW) (USEPA's web site)
- [www.dhs.ca.gov/ps/ddwem/dwp/default.htm](http://www.dhs.ca.gov/ps/ddwem/dwp/default.htm) (Department web site)

### **Should I Take Additional Precautions?**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The USEPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection of *Cryptosporidium* and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

### **Source Water Assessment**

MWD completed an assessment of its Colorado River and State Water Project supplies in 2002. Colorado River supplies are considered most vulnerable to recreation, urban/storm water runoff, increasing urbanization in the watershed, and wastewater. State Water Project supplies are considered most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting MWD at (213) 217-6850.

The City of Manhattan Beach conducted an assessment of its groundwater supplies in 2003. Groundwater supplies are considered most vulnerable to metal plating/finishing/fabricating, chemical/petroleum processing/storage, automobile repair shops, automobile gas stations, dry cleaners, and historic gas stations. A copy of the approved assessment may be obtained by contacting Bob Erikson at (310) 802-5325.

### **How Can I Participate in Decisions On Water Issues That Affect Me?**

The public is welcome to attend City Council meetings the second Tuesday of each month at 6:00 p.m. at 1400 Highland Ave.

### **How Do I Contact My Water Agency If I Have Any Questions About Water Quality?**

If you have specific questions about your tap water quality, please contact Bob Erikson at (310) 802-5325.

### **Water Trivia**

Household conservation measures in the kitchen, bathroom and laundry can conserve over 50 gallons of water a day! Use low-flow showerheads, faucet aerators, repair leaks, take shorter showers, and consider installing an ultra low-flush toilet!

**Visit us on the web at: [www.citymb.info](http://www.citymb.info)**

Este informe contiene información muy importante sobre su agua de beber. Tradúzcalo ó hable con alguien que lo entienda bien. Para obtener

una copia en Español, llame a (310) 802-5303

# CITY OF MANHATTAN BEACH 2006 ANNUAL WATER QUALITY REPORT

Results are from the most recent testing performed in accordance with state and federal drinking water regulations

## PRIMARY STANDARDS MONITORED AT THE SOURCE-MANDATED FOR PUBLIC HEALTH

ORGANIC CHEMICALS (µg/l)	GROUNDWATER		MWD'S SURFACE WATER		PRIMARY MCL	MCLG or PHG	MAJOR SOURCES IN DRINKING WATER
	AVERAGE (e)	RANGE (a)	AVERAGE (e)	RANGE (a)			
<b>INORGANICS</b> Sampled from 2004 to 2006 (c)							
Aluminum (mg/l)	ND	ND	0.03	ND-0.19	1	0.6 (b)	Erosion of natural deposits; residue from surface water treatment processes
Arsenic (µg/l)	ND	ND	ND	ND-2.4	50	0.004 (b)	Erosion of natural deposits; glass/electronics production wastes; runoff
Barium (mg/l)	0.125	.120 - .130	ND	ND	1	2 (b)	Oil drilling waste and metal refinery discharge; erosion of natural deposits
Fluoride (mg/l)	0.30	0.28-0.32	0.15	ND-0.22	2.0	1 (b)	Erosion of natural deposits, water additive that promotes strong teeth
Nitrate (mg/l as NO3)	ND	ND	0.46	ND-0.68	45	45 (b)	Runoff and leaching from fertilizer use/septic tanks/sewage, natural erosion
<b>RADIOLOGICAL - (pCi/l) Analyzed 4 consecutive quarters every 4 years (results are from 2004 to 2005) (c)</b>							
Gross Alpha (d)	6.4	ND-29.7 (k)	1.2	ND-7.2	15 (e)	0	Erosion of natural deposits
Gross Beta	NA	NA	ND	ND-4.7	50 (e)	0	Decay of natural and man-made deposits
Radium 226	0.2	ND-1.2	NA	NA	5	-	Erosion of natural deposits
Uranium	ND	ND	ND	ND-1.2	20 (e)	0.5 (b)	Erosion of natural deposits

## PRIMARY STANDARDS MONITORED IN THE DISTRIBUTION SYSTEM - MANDATED FOR PUBLIC HEALTH

MICROBIALS	DISTRIBUTION SYSTEM		PRIMARY MCL	MCLG or PHG
	AVERAGE % POSITIVE	RANGE % POSITIVE		
Total Coliform Bacteria	0%	0%	5%	0%
Fecal Coliform and E. Coli Bacteria	0%	0%	0%	0%
No. of Acute Violations	0	0	-	-
<b>DISINFECTION</b>				
<b>BY-PRODUCTS (g)</b>		<b>DISTRIBUTION SYSTEM</b>		
Trihalomethanes-TTHMs (µg/l)		AVERAGE	MCL	MCLG or PHG
		29	80	-
Haloacetic Acids (µg/l)		RANGE	MCL	MCLG or PHG
		13	60	-
		5-34		
<b>DISTRIBUTION SYSTEM</b>				
AVERAGE		RANGE		
Turbidity (NTU)		0.32	0.13-1.1	
Chlorine/chloramine Residual (mg/l)		1.73	0.07-2.51	
			TT	4.0 (h)
			Soil runoff	
			Drinking water disinfectant added for treatment	
<b>AT THE TAP</b>				
<b>PHYSICAL CONSTITUENTS</b>		<b>DISTRIBUTION SYSTEM</b>		
30 sites sampled in 2004		# OF SITES ABOVE THE AL		
Copper (mg/l)		90% site	MCL	MCLG or PHG
Lead (µg/l)		0.19 (i)	1.3 AL	0.17 (b)
		5.2 (i)	15 AL	2 (b)
		0		
		Internal corrosion of household plumbing, erosion of natural deposits		
		Internal corrosion of household plumbing, industrial manufacturer discharges		

**SECONDARY STANDARDS MONITORED AT THE SOURCE-FOR AESTHETIC PURPOSES**

Sampled from: 2004 to 2006 ( c )

	GROUNDWATER		MWD'S SURFACE WATER		SECONDARY MCL	MCLG or PHG	
	AVERAGE	RANGE	AVERAGE	RANGE			
Aggressiveness Index (corrosivity)	12	12	12	11.9-12.2	Non-corrosive	-	Natural/industrially-influenced balance of hydrogen/carbon/oxygen in water
Aluminum (µg/l) (i)	ND	ND	0.03	ND-0.19	200	600 (b)	Erosion of natural deposits, surface water treatment process residue
Chloride (mg/l)	280	270-290	59	42-98	500	-	Runoff/leaching from natural deposits, seawater influence
Color (color units)	ND	ND	2	1-4	15	-	Naturally-occurring organic materials
Conductivity (µmhos/cm)	1550	1500-1600	576	411-829	1,600	-	Substances that form ions when in water, seawater influence
Iron (µg/l)	135	120-150	ND	ND	300	-	Leaching from natural deposits, industrial wastes
Manganese (µg/l)	63	53-67	ND	ND	50	-	Leaching from natural deposits
Odor (threshold odor number)	ND	ND	2	2.0	3	-	Naturally-occurring organic materials
Sulfate (mg/l)	140	130-150	106	55-162	500	-	Runoff/leaching from natural deposits, industrial wastes
Total Dissolved Solids (mg/l)	990	980-1000	332	236-481	1,000	-	Runoff/leaching from natural deposits
Turbidity (NTU)	0.06	ND-0.11	0.07	0.05-0.09	5	-	Soil runoff

**SECONDARY STANDARDS MONITORED IN THE DISTRIBUTION SYSTEM-FOR AESTHETIC PURPOSES**

GENERAL PHYSICAL CONSTITUENTS	DISTRIBUTION SYSTEM		SECONDARY MCL	MCLG or PHG	
	AVERAGE	RANGE			
Color (color units)	1	1-2	15	-	Naturally-occurring organic materials
Odor (threshold odor number)	0	0	3	-	Naturally-occurring organic materials

**ADDITIONAL CHEMICALS OF INTEREST**

Sampled from: 2004 to 2006 ( c )

	GROUNDWATER		MWD'S SURFACE WATER	
	AVERAGE	RANGE	AVERAGE	RANGE
Alkalinity (mg/l)	210	200-220	77	63-87
Boron (µg/l)	NA	NA	150	ND-210
Bromate (µg/l)	NA	NA	6	3.3-7.2
Calcium (mg/l)	115	110-120	30	24-42
Hexavalent chromium (µg/l)	NA	NA	0.08	0.08-0.09
Magnesium (mg/l)	40	38-41	14	11-20.5
N-Nitrosodimethylamine (ng/l)	NA	NA	ND	ND-2.3
pH (standard unit)	7.7	7.5-7.9	8.3	8.1-8.4
Potassium (mg/l)	10	9-11	2.8	2.3-4.0
Sodium (mg/l)	135	130-140	55	39-81
Total Hardness (mg/l)	450	450	130	110-189
Total Organic Carbon (mg/l)	NA	NA	2.3	1.8-2.8
Vanadium (µg/l)	NA	NA	ND	ND-3.5

**FOOTNOTES**

- (a) Over 50 regulated and unregulated organic chemicals were analyzed. None were detected at or above the reporting limit in groundwater or surface water sources.
- (b) California Public Health Goal (PHG). Other advisory levels listed in this column are federal Maximum Contaminant Level Goals (MCLGs).
- (c) Indicates dates sampled for groundwater sources only.
- (d) Gross alpha standard also includes Radium-226 standard.
- (e) MCL compliance based on 4 consecutive quarters of sampling.
- (f) Running annual average used to calculate average, range, and MCL compliance.
- (g) Maximum Residual Disinfectant Level (MRDL)
- (h) Maximum Residual Disinfectant Level Goal (MRDLG)
- (i) 90th percentile from the most recent sampling at selected customer taps.
- (j) Aluminum has primary and secondary standards
- (k) Gross alpha radioactivity was detected in a single well sample in 2005. Historic radioactivity results for this well have been very low, and the high 2005 result is suspect. Certain minerals are radioactive and may emit forms of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

**ABBREVIATIONS**

- < = less than
- mg/l = milligrams per liter or parts per million (equivalent to 1 drop in 42 gallons)
- NA = constituent not analyzed
- ND = constituent not detected at the reporting limit
- ng/l = nanograms per liter or parts per trillion (equivalent to 1 drop in 42,000,000 gallons)
- µmhos/cm = micromhos per centimeter
- NTU = nephelometric turbidity units
- pCi/l = picoCuries per liter
- SI = saturation index

**DEFINITIONS**

- Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
- Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. 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.
- 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.
- Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.
- Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Primary Drinking Water Standard (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.