

# MANHATTAN BEACH 2017 ANNUAL WATER QUALITY REPORT

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

## PRIMARY STANDARDS MANDATED FOR PUBLIC HEALTH

GROUNDWATER		SURFACE WATER		MCL	MCLG or PHG (a)	MAJOR SOURCES IN DRINKING WATER
AVERAGE	RANGE	AVERAGE	RANGE			

### INORGANIC CHEMICALS

Aluminum (µg/l)	ND	ND	130	ND-210	1000	600	Erosion of natural deposits; residue from surface water treatment processes
Arsenic (µg/l)	ND	ND	ND	ND-2.4	10	0.004	Erosion of natural deposits; glass/electronics production wastes; runoff
Barium (µg/l)	100	100	ND	ND	1000	2000	Oil drilling waste and metal refinery discharge; erosion of natural deposits
Fluoride (mg/l)	0.24	0.24	0.7	0.5-0.9	2	1	Erosion of natural deposits, water additive that promotes strong teeth
Nitrate (mg/l as N)	ND	ND	ND	ND-0.6	10	10	Runoff and leaching from fertilizer use/septic tanks/sewage, natural erosion

### RADIOLOGICAL

Gross Alpha (pCi/l)	ND	ND	ND	ND-3	15	None	Erosion of natural deposits
Uranium (pCi/l)	NA	NA	ND	ND-1	20	0.43	Erosion of natural deposits

DISTRIBUTION SYSTEM		MCL (STATE/FEDERAL)	MCLG or PHG (a)	MAJOR SOURCES IN DRINKING WATER
HIGHEST % POSITIVE IN A MONTH	RANGE % POSITIVE			

### MICROBIALS

Total Coliform Bacteria	2%	ND-2%	5% of Monthly Samples/TT	0%	Naturally present in the environment
E.Coli Bacteria	0%	0%	1 out of 2 consecutive Total Coliform samples/TT	0%	Human and animal fecal waste
No. of Acute Violations	0	0	0	0	

DISINFECTION RESIDUAL	DISTRIBUTION SYSTEM		MRDL	MRDLG	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE			
Chlorine/chloramine	1.3	0.2-2.7	4.0	4.0	Drinking water disinfectant added for treatment

DISINFECTION BY-PRODUCTS (b)	HIGHEST LRAA	RANGE OF RESULTS	MCL	MCLG or PHG (a)	MAJOR SOURCES IN DRINKING WATER
Trihalomethanes-TTHMS (µg/l)	41.3	15.1-62.6	80	-	By-product of drinking water disinfection
Haloacetic Acids (µg/l)	12.4	6.0-17.6	60	-	By-product of drinking water disinfection
Bromate (µg/l)	7.4	2.6-8.9	10	0.1	By-product of drinking water disinfection

INORGANICS	DISTRIBUTION SYSTEM		MCL	MCLG or PHG (a)	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE			
Fluoride (mg/l)	0.7	0.5-0.9	2	1	Added to help prevent dental caries in consumers.

LEAD AND COPPER AT THE TAP	DISTRIBUTION SYSTEM		AL	MCLG or PHG (a)	MAJOR SOURCES IN DRINKING WATER
	90TH PERCENTILE	# SITES ABOVE AL			
Copper (mg/l)	0.13 (c)	0	1.3 AL	0.3	Internal corrosion of household plumbing, erosion of natural deposits
Lead (µg/l)	ND (c)	0	15 AL	0.2	Internal corrosion of household plumbing, industrial manufacturer discharges

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

CONSTITUENT	GROUNDWATER		SURFACE WATER		MCL	MCLG or PHG (a)	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE	AVERAGE	RANGE			
Corrosivity (Aggressiveness Index)	NA	NA	12	11.9-12.1	Non-corrosive	-	Natural/industrially-influenced balance of hydrogen/carbon/oxygen in water
Aluminum (µg/l) (d)	ND	ND	130	ND-210	200	600	Erosion of natural deposits, surface water treatment process residue
Chloride (mg/l)	279	279	66	29-94	500	-	Runoff/leaching from natural deposits, seawater influence
Color (color units)	5	5	2.0	1-2	15	-	Naturally-occurring organic materials
Conductivity (umhos/cm)	1500	1500	526	299-626	1,600	-	Substances that form ions when in water, seawater influence
Copper (mg/L) (d)	ND	ND	ND	ND-210	1	-	Corrosion of household plumbing; erosion of natural deposits; wood preservative leaching
Manganese (µg/l)	57 ( e )	57 ( e )	ND	ND	50	-	Leaching from natural deposits
Odor (threshold odor number)	1	1	2.5	2-3	3	-	Naturally-occurring organic materials
Sulfate (mg/l)	160	160	77	46-123	500	-	Runoff/leaching from natural deposits, industrial wastes
Total Dissolved Solids (mg/l)	890	890	308	179-374	1,000	-	Runoff/leaching from natural deposits
Turbidity (NTU)	0.15	0.15	ND	ND	5	-	Soil runoff

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

CONSTITUENT	DISTRIBUTION SYSTEM		MCL	MCLG or PHG (a)	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE			
Color (color units)	0.8	ND-20	15	-	Naturally-occurring organic materials
Turbidity (NTU)	0.83	0.4-1.8	5	-	Soil runoff

## ADDITIONAL CHEMICALS OF INTEREST

CONSTITUENT	GROUNDWATER		SURFACE WATER		Notification Level or PHG (a)
	AVERAGE	RANGE	AVERAGE	RANGE	
Alkalinity (mg/l)	200	200	72	43-86	-
Boron (µg/l)	NA	NA	150	110-190	1,000
Calcium (mg/l)	111	111	12	14-35	-
Magnesium (mg/l)	34	34	12	6.2-16	-
pH (standard unit)	8.0	8.0	8.4	8.2-8.7	-
Potassium (mg/l)	9.1	9.1	3.0	2.2-3.2	-
Sodium (mg/l)	130	130	60	35-80	-
Total Hardness (mg/l)	420	420	112	58-152	-

## EPA UNREGULATED CONTAMINANT MONITORING RULE

CONSTITUENT	GROUNDWATER		SURFACE WATER		Notification Level or PHG (a)
	AVERAGE	RANGE	AVERAGE	RANGE	
Chlorate (µg/l)	NA	NA	31	28-34	800
N-Nitrosodimethylamine (ng/l)	NA	NA	ND	ND-3.2	10
Vanadium (µg/l)	NA	NA	ND	ND-4	50

## ABBREVIATIONS

<b>mg/l</b> = milligrams per liter or parts per million (equivalent to 1 drop in 42 gallons)	<b>NTU</b> = nephelometric turbidity units
<b>µg/l</b> = micrograms per liter or parts per billion (equivalent to 1 drop in 42,000 gallons)	<b>umhos/cm</b> = micromhos per centimeter
<b>ng/l</b> = nanograms per liter or parts per trillion (equivalent to 1 drop in 42,000,000 gallons)	<b>ND</b> = constituent not detected at the reporting limit
<b>pCi/l</b> = picoCuries per liter	<b>NA</b> = constituent not analyzed during this reporting period

## DEFINITIONS

<p><b>Maximum Contaminant Level (MCL):</b> 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.</p> <p><b>Maximum Contaminant Level Goal (MCLG):</b> 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.</p> <p><b>Maximum Residual Disinfectant Level (MRDL):</b> The highest level of a disinfectant added allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.</p> <p><b>Maximum Residual Disinfectant Level Goal (MRDLG):</b> The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.</p> <p><b>Notification Level (NL):</b> Notification levels are health-based advisory levels established by the Division of Drinking Water (DDW) for chemicals in drinking water that lack maximum contaminant levels (MCLs). When chemicals are found at concentrations greater than their notification levels, certain requirements and recommendations apply. The level at which DDW recommends removal of a drinking water source from service is called the "response level."</p> <p><b>Public Health Goal (PHG):</b> 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.</p> <p><b>Treatment Technique (TT):</b> A required process intended to reduce the level of a contaminant in drinking water.</p> <p><b>Regulatory Action Level (AL):</b> The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.</p> <p><b>Primary Drinking Water Standard (PDWS):</b> MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.</p>	
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## FOOTNOTES

<p>(a) Advisory Levels include: California Public Health Goals (PHGs) and Notification Levels (NLs); and Federal Maximum Contaminant Level Goals (MCLGs) and Maximum Residual Disinfectant Level Goals (MRDLGs).</p> <p>(b) Location Running Annual Average used to calculate average, range, and MCL compliance</p> <p>(c) 90th percentile from the most recent sampling at selected customer taps.</p> <p>(d) Aluminum, copper, and MTBE have primary and secondary standards.</p> <p>(e) Manganese exceeded the secondary MCL in one well in 2017. Water from this well is blended with imported surface water in the distribution system to reduce concentrations. The manganese MCL is set to protect against unpleasant effects such as color, taste, odor, and the staining of laundry and plumbing fixtures. A manganese MCL exceedances do not pose a health risk</p>
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