

# MANHATTAN BEACH 2023 ANNUAL WATER QUALITY REPORT

This report is a snapshot of last year's water quality. We included details about where your water comes from, what it contains, and how it compares to State standards. We are committed to providing you with information because informed customers are our best allies.

Your tap water met all U.S. EPA and State primary drinking water health standards last year.

Only detected results are shown; all results are from the most recent testing performed in accordance with State and Federal drinking water regulations.

## SUBSTANCES MONITORED FOR PUBLIC HEALTH

	GROUNDWATER		SURFACE WATER		MCL	MCLG or PHG (a)	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE	AVERAGE	RANGE			
<b>ORGANIC CHEMICALS</b>							
None							
	GROUNDWATER		SURFACE WATER		MCL	MCLG or PHG (a)	MAJOR SOURCES IN DRINKING WATER
<b>INORGANIC CHEMICALS ( b )</b>	AVERAGE	RANGE	AVERAGE	RANGE			
Aluminum (µg/L)	ND	ND	73	ND-83	1,000	600	Erosion of natural deposits; residue from surface water treatment processes
Barium (µg/L)	101	ND-110	ND	ND	1,000	2,000	Oil drilling waste and metal refinery discharge; erosion of natural deposits
Fluoride (mg/L)	0.24	0.22-0.26	0.70	0.60-0.80	2	1	Erosion of natural deposits, water additive that promotes strong teeth
Nitrate (mg/L as N)	ND	ND	0.80	0.70-1.0	10	10	Runoff and leaching from fertilizer use/septic tanks/sewage, natural erosion
	GROUNDWATER		SURFACE WATER		MCL	MCLG or PHG (a)	MAJOR SOURCES IN DRINKING WATER
<b>RADIOLOGICAL ( c )</b>	AVERAGE	RANGE	AVERAGE	RANGE			
Gross Alpha (pCi/L)	ND	ND	ND	ND-5	15	0	Erosion of natural deposits
Gross Beta (pCi/L)	NS	NS	ND	ND-6.0	50	0	Decay of natural and man-made deposits
Uranium (pCi/L)	ND	ND	1.0	ND-3	20	0.43	Erosion of natural deposits
	DISTRIBUTION SYSTEM				MCL (STATE/FEDERAL)	MCLG or PHG (a)	MAJOR SOURCES IN DRINKING WATER
<b>MICROBIALS</b>	HIGHEST % POSITIVE IN A MONTH		RANGE % POSITIVE				
None							
	DISTRIBUTION SYSTEM				MRDL	MRDLG	MAJOR SOURCES IN DRINKING WATER
<b>DISINFECTION RESIDUAL</b>	AVERAGE		RANGE				
Chlorine/chloramine Residual (mg/L as CL <sub>2</sub> )	1.8		0.2 - 2.9		4.0	4.0	Drinking water disinfectant added for treatment
	HIGHEST LRAA		RANGE OF RESULTS		MCL	MCLG or PHG (a)	MAJOR SOURCES IN DRINKING WATER
<b>DISINFECTION BYPRODUCTS ( d )</b>							
Trihalomethanes-TTHMS (µg/L)	61		11-34		80	-	Byproduct of drinking water disinfection
Haloacetic Acids (µg/L)	18		5.5-45		60	-	Byproduct of drinking water disinfection
Bromate (µg/L) ( e )	7.6		ND-14		10	0.1	Byproduct of drinking water disinfection
	DISTRIBUTION SYSTEM				MCL	MCLG or PHG (a)	MAJOR SOURCES IN DRINKING WATER
<b>INORGANIC CHEMICALS</b>	AVERAGE		RANGE				
Fluoride (mg/L) ( e )	0.7		0.6-0.8		2	1	Runoff and leaching from natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
	DISTRIBUTION SYSTEM				AL	MCLG or PHG (a)	MAJOR SOURCES IN DRINKING WATER
<b>LEAD AND COPPER AT THE TAP</b>	90TH PERCENTILE		RANGE	# SITES ABOVE AL			
Copper (mg/L)	0.29 ( h )		ND-1.2	0	1.3	0.3	Internal corrosion of household plumbing, erosion of natural deposits
Lead (µg/L) ( f ) ( g )	4.4 ( h )		ND-50	2	15	0.2	Internal corrosion of household plumbing, industrial manufacturer discharges

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## SECONDARY STANDARDS MONITORED AT THE SOURCE FOR AESTHETIC PURPOSES

CONSTITUENT ( b )	GROUNDWATER		SURFACE WATER		MCL	MCLG or PHG ( a )	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE	AVERAGE	RANGE			
Aluminum (µg/L) ( i )	ND	ND	73	ND-83	200		Erosion of natural deposits, surface water treatment process residue
Chloride (mg/L)	215	190-240	54	34-91	500	-	Runoff/leaching from natural deposits, seawater influence
Color (color units)	6.3	5-7.5	1.3	1-2	15	-	Naturally-occurring organic materials
Conductivity (µmhos/cm)	1,400	1,200-1,600	555	357-859	1,600	-	Substances that form ions when in water, seawater influence
Foaming Agents (µg/L)	ND	ND-56	ND	ND	500	-	Municipal and industrial waste discharges
Iron (µg/L)	105	ND-140	ND	ND	300	-	Leaching from natural deposits, industrial wastes
Manganese (µg/L)	<b>53 ( j )</b>	48-57	ND	ND	50, NL = 500	-	Leaching from natural deposits
Odor (threshold odor number)	ND	ND	2	2	3	-	Naturally-occurring organic materials
Sulfate (mg/L)	155	120-190	96	51-175	500	-	Runoff/leaching from natural deposits, industrial wastes
Total Dissolved Solids (mg/L)	840	740-940	336	209-534	1,000	-	Runoff/leaching from natural deposits
Turbidity (NTU)	0.20	0.10-0.30	ND	ND	5	-	Soil runoff

## SUBSTANCES 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)	2.1	ND-25 ( k )	15	-	Naturally-occurring organic materials
Odor (threshold odor number)	ND	ND-4	3	-	Naturally-occurring organic materials
Turbidity (NTU)	0.24	ND-10	5	-	Soil runoff

## OTHER PARAMETERS

CONSTITUENT ( b )	GROUNDWATER		SURFACE WATER		Notification Level or PHG ( a )	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE	AVERAGE	RANGE		
<b>GENERAL MINERALS</b>						
Alkalinity (as CaCO ) (mg/L)	225	200-250	83	65-102	-	Runoff/leaching of natural deposits; carbonate, bicarbonate, hydroxide, and occasionally borate, silicate, and phosphate
Calcium (mg/L)	99	81-117	34	20-52	-	Runoff/leaching of natural deposits
Magnesium (mg/L)	35	31-39	12	7.8-21	-	Runoff/leaching of natural deposits
Potassium (mg/L)	11	10-11	2.9	2.4-4.3	-	Salt present in the water; naturally-occurring
Sodium (mg/L)	120	110-130	60	39-91	-	Salt present in the water; naturally-occurring
Total Hardness (mg/L)	392	331-452	136	81-220	-	Runoff/leaching of natural deposits; sum of polyvalent cations, generally magnesium and calcium present in the water
<b>SUBSTANCES WITH NOTIFICATION LEVELS</b>						
Boron (µg/L)	NS	NS	153	130-190	1,000	Runoff/leaching from natural deposits; industrial wastes
Chlorate (µg/L)	NS	NS	13	ND-19	800	Byproduct of drinking water chlorination; industrial processes
N-Nitrosodimethylamine (ng/L)	NS	NS	ND	ND-3.5	10	Byproduct of drinking water chloramination; industrial processes
Vanadium (µg/L)	NS	NS	3.5	3.1-3.9	50	Naturally-occurring; industrial waste discharge
<b>MISCELLANEOUS</b>						
Corrosivity (as saturation index) ( l )	0.57	0.37-0.78	0.47	0.19-0.83	-	Natural/industrially-influenced balance of hydrogen/carbon/oxygen in water
Lithium (µg/L)	NS	NS	ND	ND-30		Naturally-occurring; used in electrochemical cells, batteries, and organic syntheses and pharmaceuticals
pH (standard unit)	7.8	7.5-8.0	8.5	8.2-8.6	-	

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## FOOTNOTES

- (a)** Advisory Levels include: California PHGs and NLs; and Federal MCLGs and MRDLGs.
- (b)** The State allows monitoring some contaminants less than once per year because the concentrations do not vary frequently. All this data is from the most recent monitoring (2021-2023) except nitrate, which is monitored annually.
- (c)** Similar to (b), the most current results for radiological data cover samples from 2015-2023.
- (d)** LRAA is used to calculate averages, ranges, and State and Federal MCL compliance.
- (e)** Data are taken from imported water at Metropolitan Water District (MWD) treatment plant effluents.
- (f)** If present, elevated levels 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. Manhattan Beach 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 do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. 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/lead>.
- (g)** There were 0 schools in the service area that requested lead testing (2023).
- (h)** 90th percentile from the most recent sampling at selected customer taps (33 samples in 2022).
- (i)** Constituent has primary standard/action level and secondary standard.
- (j)** Manganese exceeded the secondary MCL (sMCL) in one of the City's raw water wells in 2021. However, the water that is served to the distribution system is blended with treated surface water purchased from MWD reducing color disturbances. Compliance with the sMCL is based on a running annual average (RAA). The sMCL was set to protect you against unpleasant aesthetic effects such as color, taste, odor, and the staining of plumbing fixtures and clothing when washed. Exceeding the sMCL does not pose a health risk.
- (k)** In one sample in the City's water system, color exceeded the secondary MCL (sMCL). Compliance with the sMCL is based on a running annual average (RAA). The sMCL was set to protect you against unpleasant aesthetic effects, such as color, taste, odor, and the staining of plumbing fixtures and clothing when washed. Exceeding the SMCL does not pose a health risk.
- (l)** Positive SI= non-corrosive; tendency to precipitate and/or deposit scale on pipes. Negative SI= corrosive; tendency to dissolve calcium carbonate (taken at 20° C) Reference:Standard Methods (SM2330).

## ABBREVIATIONS

- ND** = Not Detected at the reporting limit
- NS** = Not Sampled during this reporting period
- mg/L** = Milligrams per Liter or parts per million  
(equivalent to 1 drop in 42 gallons)
- MWD** = Metropolitan Water District
- µg/L** = Micrograms per Liter or parts per billion  
(equivalent to 1 drop in 42,000 gallons)
- µmhos/cm** = Micromhos per centimeter
- ng/L** = Nanograms per Liter or parts per trillion  
(equivalent to 1 drop in 42,000,000 gallons)
- NTU** = Nephelometric Turbidity Units
- pCi/L** = picoCuries per Liter

## DEFINITIONS

- Location Running Annual Average (LRAA):** Locational Running Annual Averages are calculated as an average of all samples collected within a 12-month period at a single site.
- Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water set by California and the U.S. Environmental Protection Agencies (Cal EPA and EPA). Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect odor, taste, and appearance of drinking water. MCLs are based on the most stringent value between State and EPA MCLs. A contaminant with no MCL but requires compliance with other drinking water regulations is designated either as Treatment Technique (TT), Regulatory Action Level (AL), or Notification Level (NL).
- Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs are set by the U.S.EPA.
- Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant added allowed in drinking water. There is strong evidence that disinfectant additions are necessary for microbial control.
- 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 do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- Notification Level (NL):** 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."
- Primary Drinking Water Standard (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- 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.
- Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.