

MANHATTAN BEACH 2022 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			

ORGANIC CHEMICALS

None						
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INORGANIC CHEMICALS (b)

Aluminum (µg/L)	ND	ND	119	ND-240	1,000	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	89-110	ND	ND-107	1,000	2,000	Oil drilling waste and metal refinery discharge; erosion of natural deposits
Fluoride (mg/L)	0.23	0.22-0.24	0.70	0.40-0.80	2	1	Erosion of natural deposits, water additive that promotes strong teeth
Nitrate (mg/L as N)	ND	ND	ND	ND-0.90	10	10	Runoff and leaching from fertilizer use/septic tanks/sewage, natural erosion

RADIOLOGICAL (c)

Gross Alpha (pCi/L)	ND	ND	ND	ND-3	15	0	Erosion of natural deposits
Gross Beta (pCi/L)	NS	NS	4.0	ND-9.0	50	0	Decay of natural and man-made deposits
Radium 228 (pCi/L)	ND	ND	ND	ND-1		0.019	Erosion of natural deposits
Uranium (pCi/L)	ND	ND	1.3	ND-3	20	0.43	Erosion of natural deposits

MICROBIALS	DISTRIBUTION SYSTEM		MCL (STATE/FEDERAL)	MCLG or PHG (a)	MAJOR SOURCES IN DRINKING WATER
	HIGHEST % POSITIVE IN A MONTH	RANGE % POSITIVE			
None					

DISINFECTION RESIDUAL	DISTRIBUTION SYSTEM		MRDL	MRDLG	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE			
Chlorine/chloramine Residual (mg/L as CL ₂)	1.5	0.2 - 2.9	4.0	4.0	Drinking water disinfectant added for treatment

DISINFECTION BYPRODUCTS (d)	HIGHEST LRAA	RANGE OF RESULTS	MCL	MCLG or PHG (a)	MAJOR SOURCES IN DRINKING WATER
Trihalomethanes-TTHMS (µg/L)	64	29-110	80	-	By-product of drinking water disinfection
Haloacetic Acids (µg/L)	15	5.9-22	60	-	By-product of drinking water disinfection
Bromate (µg/L) (e)	7.2	ND-15	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) (e)	0.7	0.4-0.8	2	1	Runoff and leaching from natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories

LEAD AND COPPER AT THE TAP	DISTRIBUTION SYSTEM			AL	MCLG or PHG (a)	MAJOR SOURCES IN DRINKING WATER
	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

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	119	ND-240	200	-	Erosion of natural deposits, surface water treatment process residue
Chloride (mg/L)	205	170-240	91	67-105	500	-	Runoff/leaching from natural deposits, seawater influence
Color (color units)	2.5	ND-5	1	1	15	-	Naturally-occurring organic materials
Conductivity (umhos/cm)	1,450	1,300-1,600	848	557-1,020	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)	120	100-140	ND	ND	300	-	Leaching from natural deposits, industrial wastes
Manganese (µg/L) (j)	53	49-57	ND	ND	50, NL = 500	-	Leaching from natural deposits
Odor (threshold odor number)	2	ND-4	3	3	3	-	Naturally-occurring organic materials
Sulfate (mg/L)	150	110-190	173	71-232	500	-	Runoff/leaching from natural deposits, industrial wastes
Total Dissolved Solids (mg/L)	810	680-940	533	332-648	1,000	-	Runoff/leaching from natural deposits
Turbidity (NTU)	0.28	0.25-0.30	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)	ND	ND-25	15	-	Naturally-occurring organic materials
Odor (threshold odor number)	ND	ND-4	3	-	Naturally-occurring organic materials
Turbidity (NTU)	0.20	ND-2.1	5	-	Soil runoff

OTHER PARAMETERS

CONSTITUENT (b)	GROUNDWATER		SURFACE WATER		Notification Level or PHG (a)	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE	AVERAGE	RANGE		
GENERAL MINERALS						
Alkalinity (as CaCO) (mg/L)	210	200-220	112	84-128	-	Runoff/leaching of natural deposits; carbonate, bicarbonate, hydroxide, and occasionally borate, silicate, and phosphate
Calcium (mg/L)	99	82-117	57	32-71	-	Runoff/leaching of natural deposits
Magnesium (mg/L)	34	29-39	19	6.2-26	-	Runoff/leaching of natural deposits
Potassium (mg/L)	10	10	3.7	2.0-4.8	-	Salt present in the water; naturally-occurring
Sodium (mg/L)	115	100-130	90	71-103	-	Salt present in the water; naturally-occurring
Total Hardness (mg/L)	389	325-452	222	107-281	-	Runoff/leaching of natural deposits; sum of polyvalent cations, generally magnesium and calcium present in the water
SUBSTANCES WITH NOTIFICATION LEVELS						
Boron (µg/L)	NS	NS	163	130-220	1,000	Runoff/leaching from natural deposits; industrial wastes
Chlorate (µg/L)	NS	NS	140	88-243	800	Byproduct of drinking water chlorination; industrial processes
N-Nitrosodimethylamine (ng/L)	NS	NS	ND	ND-2.6	10	Byproduct of drinking water chloramination; industrial processes
Vanadium (µg/L)	NS	NS	ND	ND-6.2	50	Naturally-occurring; industrial waste discharge
MISCELLANEOUS						
Corrosivity (as saturation index) (k)	0.43	0.37-0.50	0.51	0.35-0.61	-	Natural/industrially-influenced balance of hydrogen/carbon/oxygen in water
pH (standard unit)	7.7	7.5-7.8	8.2	8.1-8.3	-	

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 (2020-2022) except nitrate, which is monitored annually.

(c) Similar to (b), the most current results for radiological data cover samples from 2015-2020.

(d) LRAA is used to calculate averages, ranges, and State and Federal MCL compliance.

(e) Data are taken from imported water at MWD's 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 (2022).

(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 in one well in 2021. Water from this well is blended with imported surface water in the distribution system to reduce concentrations. The secondary MCL is set to protect against unpleasant effects such as color, taste, odor, and staining of laundry and plumbing fixtures. A manganese secondary MCL exceedance does not pose a health risk.

(k) 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)

µg/L = Micrograms per Liter or parts per billion
(equivalent to 1 drop in 42,000 gallons)

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

umhos/cm = Micromhos per centimeter

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 the State and the Environmental Protection Agency (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), 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.