

MANHATTAN BEACH 2018 ANNUAL WATER QUALITY REPORT

Only detected results are shown, and 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			

INORGANIC CHEMICALS

Aluminum (µg/L)	1.4	ND-2.7	76	ND-310	1,000	600	Erosion of natural deposits; residue from surface water treatment processes
Arsenic (µg/L)	0.14	ND-2.7	ND	ND	10	0.004	Erosion of natural deposits; glass/electronics production wastes; runoff
Barium (µg/L)	55	ND-110	78	ND-118	1,000	2,000	Oil drilling waste and metal refinery discharge; erosion of natural deposits
Chromium, total (µg/L)	0.08	ND-0.16	ND	ND	50	100	Discharge from steel and pulp mills/chrome plating; erosion of natural deposits
Fluoride (mg/L)	0.30	0.27-0.33	0.70	0.40-0.90	2.0	1	Erosion of natural deposits, water additive that promotes strong teeth
Nickel (µg/L)	0.95	ND-1.9	ND	ND	100	12 (a)	Erosion of natural deposits, discharge from metal factories
Nitrate (mg/L as N)	ND	ND	ND	ND-0.5	10	10	Runoff and leaching from fertilizer use/septic tanks/sewage, natural erosion
Selenium (µg/L)	0.70	ND-1.4	ND	ND	50	30	Discharge from petroleum/glass/metal refineries and mines, natural erosion

RADIOLOGICAL

Gross Alpha (pCi/l)	ND	ND-6.8	ND	ND-3	15	None	Erosion of natural deposits
Uranium (pCi/l)	ND	ND	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	0%	0%	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	1.4	0.2-3.1	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)	37	8.2-56	80	-	By-product of drinking water disinfection
Haloacetic Acids (µg/L)	11	4.8-16	60	-	By-product of drinking water disinfection
Bromate (µg/L)	4.1	ND-10	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	0.4-0.9	2	1	Added to help prevent dental cavities in consumers.

LEAD AND COPPER	DISTRIBUTION SYSTEM		AL	MCLG or	MAJOR SOURCES IN DRINKING WATER
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AT THE TAP	90TH PERCENTILE	# SITES ABOVE AL		PHG (a)	
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

SUBSTANCES 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	13	13	12	12-13	Non-corrosive	-	Natural/industrially-influenced balance of hydrogen/carbon/oxygen in water
Aluminum (µg/L) (d)	1.4	ND-2.7	76	ND-310	200	600	Erosion of natural deposits, surface water treatment process residue
Chloride (mg/L)	205	170-240	82	54-97	500	-	Runoff/leaching from natural deposits, seawater influence
Color (color units)	7.5	5-10	ND	ND-1	15	-	Naturally-occurring organic materials
Conductivity (umhos/cm)	1400	1200-1600	765	428-1010	1,600	-	Substances that form ions when in water, seawater influence
Foaming Agents (mg/L)	0.01	ND-0.03	ND	ND	0.5	-	Municipal and industrial waste discharges
Iron (µg/L)	60	ND-120	ND	ND	300	-	Leaching from natural deposits, industrial wastes
Manganese (µg/L) (e)	52	43-60	ND	ND	50	-	Leaching from natural deposits
Odor (threshold odor number)	2	2	2.3	1- 4	3	-	Naturally-occurring organic materials
Sulfate (mg/L)	129	88-170	152	43-236	500	-	Runoff/leaching from natural deposits, industrial wastes
Total Dissolved Solids (mg/L)	800	680-920	468	239-639	1,000	-	Runoff/leaching from natural deposits
Turbidity (NTU)	0.30	0.26-0.33	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)	0.1	ND-5	15	-	Naturally-occurring organic materials
Odor (threshold odor number)	ND	ND	3	-	Naturally-occurring organic materials
Turbidity (NTU)	0.12	0.29-1.5	5	-	Soil runoff

ADDITIONAL SUBSTANCES OF INTEREST

CONSTITUENT	GROUNDWATER		SURFACE WATER		Notification Level or PHG (a)
	AVERAGE	RANGE	AVERAGE	RANGE	
Alkalinity (mg/L)	250	250	97	68-117	-
Boron (µg/L)	NA	NA	133	130-140	1,000
Calcium (mg/L)	100	79-120	47	19-69	-
Magnesium (mg/L)	34	30-38	19	9.5-26	-
pH (standard unit)	8.0	7.7-8.2	8.2	8.1-8.5	-
Potassium (mg/L)	10	9-11	3.8	2.4-5.0	-
Sodium (mg/L)	125	110-140	79	45-103	-
Total Hardness (mg/L)	388	320-455	194	84-274	-

SUBSTANCES FOUND UNDER EPA UNREGULATED CONTAMINANT MONITORING RULE

CONSTITUENT	GROUNDWATER		SURFACE WATER		Notification Level or PHG (a)
	AVERAGE	RANGE	AVERAGE	RANGE	
Chlorate (µg/L)	NA	NA	30	29-32	800
Hexavalent chromium (µg/L)	0.03	ND-0.07	ND	ND	0.02
N-Nitrosodimethylamine (ng/l)	NA	NA	ND	ND-2.2	10

ABBREVIATIONS

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)
pCi/l = picoCuries per liter

NTU = nephelometric turbidity units
umhos/cm = micromhos per centimeter
ND = constituent not detected at the reporting limit
NA = constituent not analyzed during this reporting period

FOOTNOTES

(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).
(b) Location Running Annual Average used to calculate average, range, and MCL compliance
(c) 90th percentile from the most recent sampling at selected customer taps.
(d) Aluminum has primary and secondary standards.
(e) Manganese exceeded the **secondary MCL** in one well in 2018. 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

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 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.

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."

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.