

# City of Oceanside 1998 Water Quality Report of Detected Compounds<sup>(a)</sup>

Each year the City of Oceanside prepares a water quality report to inform you about the safety of our drinking water. The Federal Safe Drinking Water Act of 1974 mandated drinking water monitoring and nation-wide standards which are set by the Environmental Protection Agency (EPA).

California also has its own statewide water quality standards through the State Department of Health Services. The state requires that all water retailers provide an annual "Water Quality Report" to customers, showing test results on each source of drinking water. This report presents the findings of careful monitoring of Oceanside's three sources of drinking water. Water samples from a minimum of 31 points in the City's water distribution system are tested each week for potential contaminants.

## Oceanside's Water Sources

Approximately 93% of the water we need in Oceanside is imported from hundreds of miles away. This is "surface water" from rivers and streams in Northern California and the Colorado River Basin. The Metropolitan Water District (MWD) imports this water to Southern California via a 242-mile-long aqueduct that carries Colorado River water from Lake Havasu, and a 444-mile-long aqueduct bringing water from the Sacramento-San Joaquin Delta. Both aqueducts terminate in Lake Skinner in Riverside County, where these waters are combined.

The San Diego County Water Authority (Authority) purchases this imported water from MWD and distributes it to water agencies throughout the County, including the City of Oceanside. Approximately 53% of Oceanside's water is purchased "raw" from the Authority and is treated at the City's Robert A. Weese Water Filtration Plant. Another 40% of our water is purchased from the Authority already treated.

In addition, the City is fortunate to have a local source of groundwater. This groundwater is extracted by wells and demineralized at the Mission Basin Desalting Facility. About 7% of our water is local groundwater. When the desalting plant is expanded in the next few years, it will supply up to 21% of our water needs.

## Why is there so much media coverage that questions the quality of tap water?

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material and can pick up substances resulting from the presence of animals or from human activity. 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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800) 426-4791. In addition, watershed sanitary surveys of the Colorado River and State Water Project have been completed. If you would like information on these source water assessments or other water quality related issues, please contact Guss Pennell, Environmental/Regulatory Compliance Officer, at (760) 966-8795.

## Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline at (800) 426-4791.

## How can the public get involved?

Members of the public are welcome to meetings of the Oceanside Utilities Commission. Meetings are held on the fourth Thursday of the month at 7:00 p.m. in City Council Chambers, 300 North Coast Highway. For more information, please call (760) 966-4850.

## DEFINITIONS:

**Public Health Goal or 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.

**Maximum Contaminant Level Goal or 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 Contaminant Level or MCL:** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the PHGs and MCLGs as is economically and technologically feasible.

**Primary Drinking Water Standard:** Primary MCLs, specific treatment techniques adopted in lieu of primary MCLs, and monitoring and reporting requirements for MCLs that are specified in regulation.

## ABBREVIATIONS:

NA = Not Analyzed  
 NS = No Standard  
 ND = None Detected. Detection limits available on request.  
 NTU = Nephelometric Turbidity Units, a measure of the suspended material in water.  
 mrem/yr = millirems per year  
 CFU/mL = colony-forming units per milliliter

mg/L = milligrams per liter (parts per million)  
 µg/L = micrograms per liter (parts per billion)  
 pCi/L = picoCuries per liter  
 µmhos/cm = micromhos per centimeter  
 \* = proposed primary standard  
 # = secondary standard  
 \*\* = recommended level

## NOTES:

- Data shown are annual averages and ranges.
- The turbidity level of the filtered water shall be less than or equal to 0.5 NTU in 95% of the measurements taken each month and shall not exceed 5.0 NTU at any time.
- Total Coliform MCLs: No more than 5.0% of the monthly samples may be total coliform-positive.  
 Fecal coliform/E. coli MCLs: The occurrence of 2 consecutive total coliform-positive samples, one of which contains fecal coliform/E. coli, constitutes an acute MCL violation. These MCLs were not violated in 1998. Standards and tests are based on distribution system monthly sampling averages. Compliance is based on the combined distribution system sampling.
- State MCL is 45 mg/L as Nitrate, which equals 10.16 mg/L as N.
- The 1998/99 4-quarter radiological monitoring program is in progress. Results will be reported in the 1999 report.
- Standards are for Radium-226 and -228 combined.
- Corrosivity is measured by the Langlier Stability Index. A positive index, indicating non-corrosivity, was maintained at the plant effluents.
- Pour plate technique, 48-hour incubation at 35°C, monthly averages.
- The California State Action Level is 18 µg/L.

PARAMETER	STATE MCL	STATE PHG	RANGE and AVERAGE	SOURCE WATERS		
	FEDERAL MCL	FEDERAL MCLG		Robert A. Weese Treated Water (surface water)	MWD Lake Skinner Treated Water (surface water)	Mission Basin Desalting Facility (groundwater)
<b>PRIMARY DRINKING WATER STANDARDS — Mandatory Health-Related Standards</b>						
<b>CLARITY</b>						
Turbidity (NTU)	0.5 (b) 0.5 (b)	NS NS	Range: Average: Distribution System-wide Range = 0.05 - 1.3	0.10 - 0.45 0.13	0.10 - 0.40 0.16	0.15 - 0.90 0.35
<b>MICROBIOLOGICAL (c)</b>						
Total Coliform	5.0% 5.0%	NS 0	Distribution System-wide Range = 0 - 0.7% Distribution System-wide Monthly Average = 0.12%			
E. coli	(c) (c)	NS 0	Distribution System-wide Range = No acute violations			
<b>ORGANIC CHEMICALS (mg/L)</b>						
Disinfection by-products	NS	NS	Range: Average:	ND - 0.009 0.004	0.015 - 0.037 0.023	ND - 0.004 0.003
Haloacetic acids	0.06*	NS				
Total Trihalomethanes	0.10 0.10	NS NS	Range: Average: Distribution System-wide Range = 0.016 - 0.076	ND - 0.073 0.035	0.034 - 0.057 0.049	ND - 0.003 0.001
<b>INORGANIC CHEMICALS (mg/L)</b>						
Aluminum	1 (#0.2) #(0.05 - 0.2)	NS NS	Range: Average:	0.200 - 0.254 0.221	0.163 - 0.251 0.203	ND - 0.03 ND
Arsenic	0.05 0.05	NS NS	Range: Average:	ND - 0.002 0.002	ND - 0.003 0.002	ND ND
Barium	1 2	NS 2	Range: Average:	0.072 - 0.108 0.096	0.073 - 0.109 0.096	0.022 - 0.025 0.024
Fluoride	2 4.0 (#2.0)	1.0 NS	Range: Average:	0.22 - 0.33 0.28	0.22 - 0.34 0.30	ND ND
Nickel	0.1 NS	NS NS	Range: Average:	ND ND	ND - 0.01 ND	ND ND
Nitrate (as nitrogen)	10 (d) 10	10 10	Range: Average:	0.36 - 1.40 0.62	0.14 - 0.61 0.43	ND - 0.04 ND
Nitrite (as nitrogen)	1 1	1 1	Range: Average:	ND - 0.56 0.19	ND - 0.004 ND	ND ND
Nitrate plus Nitrite (as nitrogen)	10 10	10 10	Range: Average:	0.36 - 1.40 0.76	0.15 - 0.61 0.43	ND - 0.04 ND
<b>RADIONUCLIDES (e) (pCi/L)</b>						
[analyzed every four years, for four consecutive quarters (tritium sampled in 1997, others sampled from 8/94 to 4/95)]						
Gross alpha	15 15	NS NS	Range: Average:	2.0 - 8.0 5.8	ND - 9.4 4.9	1.0 - 2.0 1.5
Gross beta	50 4 mrem/yr	NS NS	Range: Average:	3.4 - 14.1 8	2.6 - 17.8 7.7	NA NA
Radium-226 (f)	5 5	NS NS	Range: Average:	ND - 3.0 1.1	ND - 1.2 ND	NA NA
Radium-228 (f)	5 5	NS NS	Range: Average:	ND ND	ND ND	NA NA
Radon-222	NS NS	NS NS	Range: Average:	ND - 63 ND	ND - 83 ND	NA NA
Strontium-90	8 8	NS NS	Range: Average:	ND - 1.3 ND	ND - 2.3 ND	NA NA
Tritium	20,000 20,000	NS NS	Range: Average:	ND ND	ND ND	NA NA
Uranium	20 NS	NS NS	Range: Average:	3.4 - 5.7 4.8	ND - 4.9 3.4	NA NA
<b>SECONDARY STANDARDS — Aesthetic Standards</b>						
Chloride (mg/L)	** 250 250	NS NS	Range: Average:	65.5 - 75.1 72.1	65.5 - 76.7 72.8	52 - 68.7 62.3
Color (units)	15 15	NS NS	Range: Average: Distribution System-wide Range = <3 - 15	ND - 3 ND	ND ND	3 - 8 5
Corrosivity	noncorrosive noncorrosive	NS NS	Range: Average:	(g) (g)	(g) (g)	(g) (g)
Iron (mg/L)	0.3 0.3	NS NS	Range: Average:	ND ND	ND - 0.04 ND	0.089 - 0.219 0.160
Manganese (mg/L)	0.05 0.05	NS NS	Range: Average:	ND ND	ND - 0.003 ND	0.023 - 0.055 0.042
Methyl-Tert-Butyl Ether (MTBE)	NS NS	NS NS	Range: Average:	ND ND	ND ND	ND ND
Odor Threshold (units)	3 3	NS NS	Range: Average: Distribution System-wide Range = ND - 1	ND ND	ND ND	ND - 1 ND
pH (units)	NS 6.5 - 8.5	NS NS	Range: Average: Distribution System-wide Range = 7.00 - 9.08	7.52 - 8.10 8.12	7.96 - 8.13 8.06	8.99 - 9.34 9.22
Specific Conductance (µmhos/cm)	** 900 NS	NS NS	Range: Average:	725 - 883 819	708 - 918 845	409 - 442 424
Sulfate (mg/L)	** 250 250	NS NS	Range: Average:	136 - 220 184	133 - 219 186	44.2 - 49.8 47.4
Total Dissolved Solids (mg/L)	** 500 500	NS NS	Range: Average:	436 - 588 512	432 - 594 538	204 - 282 232
Turbidity (NTU)	5 NS	NS NS	Range: Average:	0.10 - 0.45 0.13	0.10 - 0.40 0.16	0.15 - 0.90 0.35
<b>ADDITIONAL PARAMETERS</b>						
Alkalinity as CaCO <sub>3</sub> (mg/L)	NS NS	NS NS	Range: Average:	100 - 120 108	102 - 130 117	41.9 - 44.0 43.2
Ammonia as nitrogen (mg/L)	NS NS	NS NS	Range: Average:	0.86 - 1.20 1.0	0.45 - 0.52 0.48	0.71 - 0.74 0.72
Boron (mg/L)	NS NS	NS NS	Range: Average:	0.116 - 0.149 0.127	0.118 - 0.146 0.127	0.107 - 0.121 0.115
Calcium (mg/L)	NS NS	NS NS	Range: Average:	48 - 71 62	48 - 69 62	26 - 29 28
Hardness as CaCO <sub>3</sub> (mg/L)	NS NS	NS NS	Range: Average:	203 - 283 251	202 - 276 250	102 - 112 108
Hardness (grains/gallon)	NS NS	NS NS	Range: Average:	11.9 - 16.5 14.7	11.8 - 16.1 14.6	6.0 - 6.45 6.3
Heterotrophic Plate Count (CFU/mL) (h)	NS NS	NS NS	Range: Average:	<1 - 3 <1	<1 - 6 3	6 - 112 38
Magnesium (mg/L)	NS NS	NS NS	Range: Average:	20.2 - 25.6 23.4	20.0 - 25.2 23.1	9.04 - 9.64 9.43
Molybdenum (mg/L)	NS NS	NS NS	Range: Average:	0.0040 - 0.0046 0.0042	0.0040 - 0.0064 0.0048	ND ND
Perchlorate (µg/L) (i)	NS NS	NS NS	Range: Average:	ND - 8 4	ND - 8 4	ND ND
Potassium (mg/L)	NS NS	NS NS	Range: Average:	3.67 - 4.36 4.03	3.74 - 4.33 4.02	1.24 - 1.38 1.31
Silica as SiO <sub>2</sub> (mg/L)	NS NS	NS NS	Range: Average:	3.52 - 4.45 4.06	3.53 - 4.54 4.02	1.83 - 1.87 1.82
Sodium (mg/L)	NS NS	NS NS	Range: Average:	71.6 - 91.4 80.4	72.4 - 91.2 81.3	34.6 - 40.8 38.3
Strontium (mg/L)	NS NS	NS NS	Range: Average:	0.586 - 1.04 0.875	0.582 - 1.03 0.867	0.130 - 0.137 0.134
Total Organic Carbon (mg/L)	NS NS	NS NS	Range: Average:	1.7 - 2.6 2.2	2.24 - 3.04 2.73	ND - 1.4 ND