

# 2001 Water Quality Test Results

The tables below list all the drinking water contaminants detected during the 2001 calendar year. Thousands of water quality tests were performed last year on your drinking water. The results in this report show that your water met, and in most cases exceeded, all of the stringent state (California Department of Health Services) and federal (U.S. Environmental Protection Agency) water quality standards relating to public health and aesthetics, such as taste, odor and color. Unless otherwise noted, the data in the following tables reflect testing from Jan. 1, 2001, through Dec. 31, 2001. The monitoring of certain contaminants is not required annually since they are not

expected to vary significantly from year to year. Therefore, though representative of the water quality, some of the data may be more than one year old.

Key terms to help you understand this report:

**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.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant allowed in drinking water. Primary MCLs are set as close to the PHGs or (MCLGs) as is economically and techno-logically feasible.

**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 (USEPA).

**Primary Drinking Water Standard (PDWS):** MCLs for contaminants that affect health, along with their monitoring and reporting requirements, and water treatment requirements.

**Regulatory Action Level (RAL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**Secondary Drinking Water Standards (SDWS):** Protects the odor, taste and appearance of drinking water and are set by the Calif. Department of Health Services.

**Treatment Technique (TT):** A required process intended to reduce the level of contamination in drinking water.

Substance	Units	MCL	PHG	Range	Average	Major Sources in Drinking Water
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## PRIMARY STANDARDS - Mandatory Health-Related Standards - Data provided by Metropolitan Water District of Southern California

CLARITY						
Combined Filter Effluent Turbidity	NTU%	.05 95(a)	NA	highest .16	<0.5 100%	Soil Runoff
MICROBIOLOGICAL(b)						
Total Coliform Bacteria	%	5.0	(0)		0.06%	Naturally present in environment
Fecal Coliform and E. coli	(c)	(c)	(0)		0 positive	Human and animal fecal waste
ORGANIC CHEMICALS						
Acrylamide	-	TT	(0)	TT	TT	Discharge from petroleum and chemical refineries
Epichlorohydrin	-	TT	(0)	TT	TT	Industrial factory discharges, treatment chemical impurities
VOLATILE ORGANIC COMPOUNDS						
Toluene (e)	ppb	150	150	ND-0.6	ND	Discharge from petroleum and chemical refineries
Total Trihalomethanes (f)	ppb	100	NA	36-59	50	By-product of drinking water chlorination
INORGANIC CHEMICALS						
Fluoride	ppm	2	1	0.19-0.24	0.22	Erosion of natural deposits; water additive that prevents tooth decay
RADIONUCLIDES (g)						
Gross Alpha Particle Activity	pCi/L	15	NA	ND-5.53	3.99	Erosion of natural deposits; seawater influence
Gross Beta Particle Activity	pCi/L	50	NA	ND-7.48	5.24	Decay of natural & manmade deposits
Combined Radium(h)	pCi/L	5	NA	ND-2.36	1.01	Erosion of natural deposits
Uranium	pCi/L	20	0.5	ND-3.18	2.61	Erosion of natural deposits

Parts Per Million  
3 drops in 42 gallons

Parts Per Billion  
1 drop in 14,000 gallons

## SECONDARY STANDARDS - Aesthetic Standards - Data provided by Metropolitan Water District of Southern California

Chloride	ppm	500	NA	76-85	79	Runoff/leaching from natural deposits
Color	units	15	NA	1-3	2	Naturally occurring organic materials
Corrosivity(i)	SI	noncorrosive	NA	0.19-0.42	0.34	Elemental balance in water; affected by temp., other factors
Odor Threshold (j)	units	3	NA	(j)	(j)	Naturally occurring organic materials
Specific Conductance	umho/cm	1600	NA	813-876	836	Substances that form ions when in water; seawater influence
Sulfate	ppm	500	NA	166-186	177	Runoff/leaching of natural deposits; industrial wastes
Total Dissolved Solids	ppm	1000	NA	480-521	500	Runoff/leaching of natural deposits; seawater influence
Turbidity (monthly)	NTU	5	NA	0.05-0.07	0.06	Soil runoff

## ADDITIONAL PARAMETERS - Aesthetic Standards - Data provided by Metropolitan Water District of Southern California

### ICR-DISINFECTION BY-PRODUCTS

Chloral hydrate	ppb	NA	NA	3.5-7.0	5.1
Cyanogen chloride	ppb	NA	NA	2.3-5.5	3.4
Haloacetic acid	ppb	NA	NA	17-33	25
Haloacetonitriles	ppb	NA	NA	5.6-17	8.7
Haloketones	ppb	NA	NA	1.3-2.2	1.6
Total Chlorine residual	ppm	NA	NA	2.27-2.83	2.57
Total organic halides	ppm	NA	NA	115-157	138

### MICROBIAL CONTAMINANTS

Heterotrophic Plate Count(k)	CFU/ml	NA	NA	<1	<1
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### UNREGULATED CHEMICALS

Boron	ppb	NA	AL=1,000	120-130	120
Perchlorate	ppb	NA	AL=18	ND-6	4

### OTHER PARAMETERS

Alkalinity	ppm	NA	NA	112-123	116
Calcium	ppm	NA	NA	55-59	57
Hardness	ppm	NA	NA	232-248	239
Magnesium	ppm	NA	NA	23-24.5	23.5
Potassium	ppm	NA	NA	3.8-4.1	3.9
Sodium	ppm	NA	NA	71-82	77
TOC (p)	ppb	NA	NA	2.33-2.96	2.69

ABBREVIATIONS
AL - Regulatory Action Level
CFU/ml - Colony Forming Units/ml
Contaminant Level
ICR - Information Collection Rule
MCL - Maximum Contaminant Level
MCLG - Maximum Contaminant Level Goal
NA - Not Applicable
ND - None Detected
NTU - Nephelometric Turbidity Units
pCi/L - picoCuries per liter (a measure of radiation)
PHG - Public Health Goal
PPB - Parts Per Billion (ug/L)
PPM - Parts Per Million (mg/L)
PPT - Parts Per Trillion
SI - Saturation Index
TT - Treatment Technique
ummho/cm - Micromhos per centimeter

## Data provided by Vallecitos Water District - Summary of Water Quality Tests

At Distribution System						
Total Coliform Bacteria (l)	%	5.0(b)	NA	1 positive	0 positive	Bacteriological regrowth (1,019 samples taken)
Fecal Coliform/E. coli (l)	(c)	(c)	NA	0 positive	0 positive	Human and animal fecal waste
Total Trihalomethanes (m)	ppb	100	NA	33-57	45.7	By-product of drinking water chlorination
General Physical Sampling (n)	(n)	(n)	(n)			Aesthetic Standards (DHS requires VWD to conduct 20 General Physical samples/month)
At Customer's Tap						
				90th Percentile Level found		
Copper	ppm	AL=1.3	0.17	0.19	(o)	Corrosion of household plumbing & erosion of natural deposits
Lead	ppm	AL=.015	2	.0055	(o)	Corrosion of household plumbing & erosion of natural deposits

\*This report lists only the detected contaminants, which are required by law to be published. However, more than 136 contaminants are monitored. If you would like a copy of the full report, including the non-detected contaminants, such as Arsenic, Chromium 6, Cryptosporidium, and Giardia, call VWD at (760) 744-0460.

**NOTES:** (a) 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. Turbidity is a measure of the cloudiness of the water and is a good indication of the effectiveness of the MWD filtration system.

(b) Total coliform MCLs: No more than 5.0% of the monthly samples may be total coliform positive. Compliance is based on the monthly filtration plant effluent samples. Compliance is based on a running annual average of more than 40 quarterly distribution system samples, which was 57 ppb for 2001.

(c) 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. The MCL was not violated in 2001.

(e) Calculated from the monthly filtration plant effluent samples. Compliance is based on a running annual average of more than 40 quarterly distribution system samples, which was 57 ppb for 2001.

(f) State MCL is 45 mg/L as Nitrate, which equals 10.16 mg/L as N.

(g) Results are for the 1998/99 4-quarter radiological monitoring program.

(h) Standard is for Radium-226 and -228 combined.

(i) Corrosivity is measured by the Langlier Stability index. A positive index, indicating non-corrosivity, was maintained at the plant effluents.

(j) MWD has developed a flavor-profile analysis method that can more accurately detect odor occurrences.

For more information, contact MWD at (213) 217-6850.

(k) Pour plate technique, 48-hour incubation at 35 C, monthly averages.

(l) Vallecitos Water District tested more samples than required by the state Department of Health Services (900 were required, 1,019 taken). All samples tested negative for Fecal/E.coli bacteria. The one sample that tested positive was resampled with negative results. The positive sample was unrelated and determined to have been caused by a contaminated sample point and not the water itself. The District was in compliance with both the Total Coliform MCL and Fecal/E.coli MCL for 2001.

(m) The MCL for Trihalomethanes is determined by using a running average of the last four quarterly tests. The District was in compliance with the Trihalomethane MCL for 2001.

(n) The state Department of Health Services, Office of Drinking Water, requested that the District begin taking General Physical samples in September 1994. The District was required to take twenty (20) General Physical samples per month in 2001. These samples were tested for Turbidity, Odor and Color. The District was in compliance with the MCLs for these tests in 2001.

(o) The federal & state standards for Lead & Copper are treatment techniques requiring agencies to optimize corrosion control treatment. The District was in compliance with the lead & copper rule in 2001.

(p) TOCs at the filtration plants were taken at the filter effluents.