



Municipal Water District

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“Providing a high quality, reliable water supply to our customers since 1961”

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This annual water quality report, is printed on recycled paper, as are all District publications. 

**Consumer
Confidence
Report
2004**
*An Annual
Drinking Water
Quality Report*



This brochure explains how drinking water provided by Olivenhain Municipal Water District meets and exceeds all state and federal water quality standards for drinking water. Included is a listing of results from water quality tests as well as an explanation of where our water comes from and tips on how to interpret the data. The data presented is for January 1 through December 31, 2004. We are proud to share our results with you. Please read them carefully.

Get Involved

We encourage public interest and participation in our community's decisions affecting drinking water and any other issues. Regular meetings occur on the second Friday at 8:00 a.m. and the fourth Wednesday of every month in the Boardroom at the District Office. The time of the Wednesday meeting alternates on a monthly basis between 8:00 a.m. and 6:00 p.m. The public is welcome.

If you have questions or need more information about this report, call Eric Phillips with Olivenhain Municipal Water District at (760) 632-4649.

El informe contiene información importante sobre la calidad del agua en su comunidad. Tradúzcalo o hable con alguien que lo entienda bien, llame Abe Gonzalez a (760) 632-4643.

Consumer Confidence Report 2004

Water Source

The Olivenhain Municipal Water District (OMWD) currently has two sources of treated water that are delivered to different parts of its system, the Olivenhain Water Treatment Plant and the Skinner Water Treatment Plant.

The Olivenhain Water Treatment Plant

For 2004, approximately 50% of the treated water delivered in the District was treated locally at the Olivenhain Water Treatment Plant (OWTP).

Water treated at the OWTP is imported raw water obtained from the San Diego County Water Authority (SDCWA). SDCWA purchases raw water from Metropolitan Water District of Southern California (MWD). The water received at the OWTP is a blend of water from the Colorado River and water from Northern California.

The OWTP is located within the northeastern portion of the District's service area and uses membrane technology to produce superior quality finished water. Fewer chemicals are used in this treatment process than conventional treatment and the membrane process offers improved barriers against pathogens such as cryptosporidium and bacteria such as coliform.

The Skinner Water Treatment Plant

The remaining 50% of the treated water delivered in the District's system in 2004 was imported treated water obtained from the SDCWA. SDCWA purchases treated water from MWD, which is also a blend of water from the Colorado River and water from Northern California and is treated at the Lake Skinner treatment plant owned by MWD and located in the southwestern Riverside County.

You will notice separate columns for water that is treated at Lake Skinner and water that is treated at the District's plant.

For information on the Lake Skinner source water and a source water assessment, please contact Dr. Mic Stewart with MWD at (213) 217-5696. For more information on the Olivenhain Water Treatment Plant, please contact Brian MacDonald at (760) 740-1385.

What About Radon?

Radon is a radioactive gas found throughout the United States that you can't see, taste, or smell. Olivenhain Municipal Water District tested for and did not detect radon in its water. There is no Federal regulation for radon levels in drinking water at this time. If you are concerned about radon in your home and would like additional information, contact the Radon Hotline (1-800-SOS-RADON).

What About Cryptosporidium?

Cryptosporidium (pronounced "krip-toe-spore-id-ee-um") is a protozoan parasite found in lakes and rivers, typically when these waters contain animal or sewage waste. *Cryptosporidium* was not detected in samples of Olivenhain Municipal Water District's water.

What About Lead?

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from

the United States Environmental Protection Agency (USEPA) Safe Drinking Water Hotline (1-800-426-4791).

Important Health Information

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. 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 USEPA's Safe Drinking Water Hotline (1-800-426-4791).

The trace contaminants found in District water sources are listed in the table found at the center of this report, along with standards of each. It is important to note that drinking standards are based on research to protect the general public and may not be sufficient to protect certain persons, as noted below.

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, persons 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. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

How do contaminants get into the water?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

(A) Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

(B) Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

(D) Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

(E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency and the State Department of Health Services (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

How to Read These Tables

The results of tests performed in 2004 are presented in the tables. Terms used in the Water Quality Tables and in other parts of this report are defined here.

Public Health Goal (PHG): The level of a contaminant in drinking water for 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 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 for which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

OWTP: Olivenhain Water Treatment Plant

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

Regulatory Action Level: 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.

PRIMARY STANDARDS - Mandatory Health - Related Standards

Clarity (a)	MCL	PHG (MCLG)	State DLR	Range Average	Combined Skinner Plants	OWTP	Major Sources
Combined Filter (NTU)	0.3	–	–	Highest	0.09	0.067	Soil runoff
Effluent Turbidity %	95 (a)	NA	NA	% < 0.3	100%	100%	Soil runoff

Microbiological (b)	MCL	PHG (MCLG)	State DLR	Range Average	Combined Skinner Plants	OWTP	Major Sources
Total Coliform Bacteria %	5.0 (b)	(0)	NA	Range	0	0	Naturally present in the environment
				Average	0%	0%	

Organic Chemicals Pesticides/PCBs	MCL	PHG (MCLG)	State DLR	Range Average	Combined Skinner Plants	OWTP	Major Sources
Methyl- <i>tert</i> -butyl-ether (MTBE) (f,g) (ppb)	13	13	3	Range	ND	ND	Gasoline discharges from watercraft engines
				Average	ND	ND	

Inorganic Chemicals	MCL	PHG (MCLG)	State DLR	Range Average	Combined Skinner Plants	OWTP	Major Sources
Fluoride (ppm)	2	1	0.1	Range	0.21 - 0.30	0.23	Erosion of natural deposits; water additive for tooth health (s)
				Average	0.24	0.23	

Radiologicals (f)	MCL	PHG (MCLG)	State DLR	Range Average	Combined Skinner Plants	OWTP	Major Sources
Gross Alpha Particle Activity (pCi/L)	15	NA	3	Range	ND - 4.0	2.0 - 4.3	Erosion of natural deposits
				Average	3.4	4.3	
Gross Beta Particle Activity (pCi/L)	50	NA	4	Range	ND - 4.1	1.6 - 3.2	Decay of natural and man-made deposits
				Average	ND	3.2	
Combined Radium (pCi/L) (j)	5	NA	1.0	Range	ND	0.48 - 5.12	Erosion of natural deposits
				Average	ND	5.12	
Uranium (pCi/L)	20	0.5	2	Range	ND - 2.4	NRA	Erosion of natural deposits
				Average	ND	2.21	

Disinfection By-Products, Residuals, Precursors	MCL	PHG (MCLG)	State DLR	Range Average	Combined Skinner Plants	OWTP	Major Sources
Total Trihalomethanes (TTHM) (k) (ppb)	80	NA	0.5	Range	31 - 70	27.1 - 76.2	By-product of drinking water chlorination
				Average	53	40.6	
Total Trihalomethanes (TTHM) (k) (ppb)	80	NA	0.5	Range	30 - 87	NA	By-product of drinking water chlorination
				Average	60	NA	
Haloacetic Acids (five) (HAA5) (k,l) (ppb)	60	NA	1 (l)	Range	13 - 38	16.9 - 58.2	By-product of drinking water chlorination
				Average	21	27.3	
Total Chlorine Residual (ppm)	[4.0]	[4.0]	NA	Range	1.7 - 3.0	1.5 - 3.2	Drinking water disinfectant added for treatment
				Highest RAA	2.4	2.35	

Unregulated Chemicals Requiring Monitoring - OMWD Water

State of California regulations require us to monitor these contaminants while the EPA considers setting limits on them. These chemicals are formed in small quantities during the disinfection process at the water treatment plant. No Public Health Goals or Maximum Contaminant Levels have been established for these contaminants.

Unregulated Chemicals	MCL	PHG (MCLG)	State DLR	Range Average	Combined Skinner Plants	OWTP	Major Sources
Boron (ppb)	NA	AL =1,000	100	Range	130 - 140	140	Runoff/leaching from natural deposits; industrial wastes
				Average	140	140	
Perchlorate (ppb)	NA	6	4	Range	ND	ND	Industrial waste discharge
				Average	ND	ND	

Microbial Contaminants	MCL	PHG (MCLG)	State DLR	Range Average	Combined Skinner Plants	OWTP	Major Sources
Heterotrophic Plate Count (d) (CFU/mL)	TT	NA	NA	Range	<1 - 4	<1.0	Naturally present in the environment
				Average	<1	<1.0	

Other Parameters	MCL	PHG (MCLG)	State DLR	Range Average	Combined Skinner Plants	OWTP	Major Sources
Alkalinity (ppm)	NA	NA	-	Range	103 - 124	94 - 114	Erosion of natural deposits
				Average	110	107	
Calcium (ppm)	NA	NA	-	Range	51 - 64	NRA	Erosion of natural deposits
				Average	54	53	
Hardness (ppm)	NA	NA	-	Range	218 - 269	NRA	Erosion of natural deposits
				Average	230	223	
Magnesium (ppm)	NA	NA	-	Range	22 - 26.5	NRA	Erosion of natural deposits
				Average	23	22	
pH (pH Units)	NA	NA	-	Range	8.0 - 8.1	7.77 - 8.53	Erosion of natural deposits
				Average	8.1	8.26	
Potassium (ppm)	NA	NA	-	Range	3.8 - 4.3	NRA	Erosion of natural deposits
				Average	4.0	4	
Sodium (ppm)	NA	NA	-	Range	74 - 90	NRA	Runoff/leaching form natural deposits; seawater influence
				Average	78	81	
TOC (ppm)	TT	NA	0.30	Range	2.1 - 3.0	2.5 - 3.3	Various natural and man-made sources
				Average	2.5	2.87	

Secondary Drinking Water Standards

Aesthetic Standards	MCL	PHG (MCLG)	State DLR	Range Average	Combined Skinner Plants	OWTP	Major Sources
Chloride (ppm)	500	NA	NA	Range	80 - 92	NRA	Runoff/leaching from natural deposits; seawater influence
				Average	85	87	
Color (units)	15	NA	NA	Range	1 - 3	NRA	Naturally occurring organic materials
				Average	2	3	
Corrosivity (SI)	non-corrosive	NA	NA	Range	0.18 - 0.32	NR	Elemental balance in water; affected by temperature, other factors
				Average	0.26	NR	
Methyl- <i>tert</i> -butyl-ether (MTBE) (<i>f,g</i>) (ppb)	5	13	3	Range	ND	ND	Gasoline discharges from watercraft engines
				Average	ND	ND	
Specific Conductance (μ S/cm)	NA 1600	NA	NA	Range	786 - 947	NRA	Substances that form ions in water; seawater influence
				Average	827	742	
Sulfate (ppm)	500	NA	0.5	Range	153 - 212	NRA	Runoff/leaching form natural deposits; industrial wastes
				Average	169	160	
Total Dissolved Solids (TDS) (ppm)	1000	NA	NA	Range	466 - 574	NRA	Runoff/leaching form natural deposits; seawater influence
				Average	492	500	
Turbidity (NTU) (<i>a</i>)	5	NA	NA	Range	0.05 - 0.07	0.06 - 0.09	Soil runoff
				Average	0.06	0.067	



OMWD's Water Quality Team



Computers assist employees in monitoring the District's Water System



Repairing a Reservoir Valve

Disinfection By-Products Requiring Monitoring - OMWD Water

State of California regulations require us to monitor these contaminants while the EPA considers setting limits on them. These chemicals are formed in small quantities during the disinfection process at the water treatment plant. No Public Health Goals or Maximum Contaminant Levels have been established for these contaminants.

ICR Disinfection By-Products Data 8/97 to 12/98	MCL	PHG (MCLG)	State DLR	Range Average	Combined Skinner Plants	OWTP	Major Sources
Chloral Hydrate (ppb)	NA	NA	0.5	Range	3.5 - 7.0	NR	By-product of drinking water chlorination
				Average	5.1	NR	
Cyanogen Chloride (ppb)	NA	NA	0.5	Range	2.3 - 5.5	NR	By-product of drinking water chlorination
				Average	3.4	NR	
Haloacetonitriles (ppb)	NA	NA	0.5	Range	5.6 - 17	NR	By-product of drinking water chlorination
				Average	8.7	NR	
Haloketones (ppb)	NA	NA	0.5	Range	1.3 - 2.2	NR	By-product of drinking water chlorination
				Average	1.6	NR	
Total Organic Halides (ppb)	NA	NA	50	Range	115 - 157	NR	By-product of drinking water chlorination
				Average	138	NR	

Abbreviations

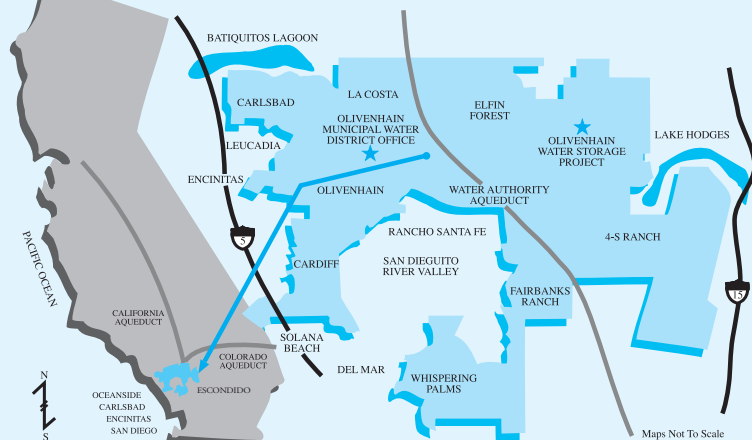
AL	California Action Level; as of 1/05, AL became notification level (NL)
CFU/ml	Colony Forming Units per milliliter
DCEPA	Dimethyl Tetrachloroterephthalate
DBP	Disinfection By-Products
DLR	Detection Limits for purposes of Reporting
HAA5	Haloacetic Acids (five)
MBAS	Methylene Blue Active Substances
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MFL	Million Fibers per Liter
MPN	Most Probable Number
MRDL	Maximum Residual Disinfectant Level
MRDLG	Maximum Residual Disinfectant Level Goal
N	Nitrogen
NA	Not Applicable

NR	Not Required
NRA	No Range Available
ND	None Detected
NTU	Nephelometric Turbidity Units
pCi/L	picoCuries per liter
PHG	Public Health Goal
ppb	parts per billion or micrograms per liter ($\mu\text{g/L}$)
ppm	parts per million or milligrams per liter (mg/L)
ppq	parts per quadrillion or picograms per liter (pg/L)
ppt	parts per trillion or nanograms per liter (ng/L)
RAA	Running Annual Average
SI	Saturation Index (Langelier)
TOC	Total Organic Carbon
TTHM	Total Trihalomethanes
TT	Treatment Technique
$\mu\text{S/cm}$	microSiemen per centimeter; also equivalent to $\mu\text{mho/cm}$ (micromho per centimeter)

Footnotes

- (a) The turbidity level of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1 NTU at any time. Turbidity is a measure of the cloudiness of the water and is an indicator of treatment performance. The monthly averages and ranges of turbidity shown in the Secondary Standards section were based on Skinner and OWTP effluents.
- (b) Total coliform MCLs: No more than 5.0% of the monthly samples may be total coliform-positive. Compliance is based on the combined distribution system sampling from all the filtration plants. In 2004, 11,592 samples were analyzed. The MCL was not violated.
- (c) Fecal coliform/E.coli MCLs: The occurrence of two (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 2004.
- (d) HPC values were based on the monthly averages of the plant effluent samples. In 2004, all distribution samples collected had detectable total chlorine residuals and no HPC was required.
- (e) In 2004, the plant effluents had no detectable Cryptosporidium, Giardia, or Total Culturable Viruses. Additionally, there were no Cryptosporidium, Giardia, or Total Culturable Viruses found in all of the plant influents. Source water monitoring for Cryptosporidium and Giardia started in July 2004. No Cryptosporidium or Giardia were detected in the source water samples. Cryptosporidium and Giardia samples were collected monthly (10 liters for plant influents and source waters; 200 liters for plant effluents). Total Culturable Viruses samples were collected quarterly.
- (f) Aluminum, copper, MTBE, and thiobencarb have both primary and secondary standards.
- (g) MTBE reporting level is 0.5 ppb.
- (h) State MCL is 45 mg/L as nitrate, which equals 10 mg/L as N.
- (i) Results based on the 2002 - 2003 four-quarter radiological monitoring program.
- (j) Standard is for Radium -226 and -228 combined.
- (k) Average and range for the filtration plant effluents were taken from weekly samples for TTHM and monthly samples for HAA5. Distribution system-wide average and range were taken from 47 samples collected quarterly. In 2004, Metropolitan was in compliance with all provisions of the Stage 1 Disinfectants/Disinfection By-Products (D/DBP) Rule. Metropolitan was also in compliance with the DBP precursor control portion of the Stage 1 regulation.
- (l) DLR = 1.0 ppb for each HAA5 analyte (dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid) except for monochloroacetic acid which has a DLR = 2.0 ppb.
- (m) Running annual average was calculated from weekly samples.
- (n) Metropolitan has developed a flavor-profile analysis method that can more accurately detect odor occurrences. For more information, contact MWD at (213) 217-6850.
- (o) Data collected from January 2002 to January 2003. Minimum reporting levels are as stipulated in the Federal Unregulated Contaminants Monitoring Rule (UCMR). List 1 - Assessment Monitoring consists of 12 chemical contaminants for which standard analytical methods are available. List 2 - Screening Survey consists of 16 contaminants for which new analytical methods are used.
- (p) TOCs at the filtration plants were taken at the filter effluents.
- (q) Range for the filtration plant influents and effluents were taken from quarterly samples. No NDMA was detected at the plant influents. Distribution system-wide ranges were taken from nine (9) samples collected quarterly.
- (r) Lead and copper are regulated in a Treatment Technique under the Lead and Copper Rule. It requires systems to take water samples at the consumers' tap. The federal action level, which triggers water systems into taking treatment steps if exceeded in more than 10% of the tap water samples, is 1.3 ppm for copper and 15 ppb for lead.
- (s) OMWD does not put fluoride in its water.

District Service Area



Olivenhain Dam & Olivenhain Water Treatment Plant

