

This report contains important information about your drinking water.
Translate it, or speak with someone who understands it.

يحتوي هذا التقرير على معلومات هامة عن نوعية ماء الشرب في منطقتك. يرجى ترجمته، أو ابحث التقرير مع صديق لك يفهم هذه المعلومات جيدا.

Arabic

Der Bericht enthält wichtige Informationen über die Wasserqualität in Ihrer Umgebung. Der Bericht sollte entweder offiziell uebersetzt werden, oder sprechen Sie mit Freunden oder Bekannten, die gute Englischkenntnisse besitzen

German

이 보고서에는 귀하가 거주하는 지역의 수질에 관한 중요한 정보가 들어 있습니다. 이것을 번역하거나 충분히 이해하시는 친구와 상의하십시오.

Korean

这份报告中有些重要的信息，讲到关于您所在社区的水的品质。请您找人翻译一下，或者请能看得懂这份报告的朋友给您解释一下。

Chinese

इस रिपोर्ट में 'पीने के पानी' के विषय पर बहुत जरूरी जानकारी दी गई है। कृपया इसका अनुवाद कीजिये, या किसी जानकार से इस बारे में पूछिये।

Hindi

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

Spanish

Cé rapport contient de information importantes concernant votre eau potable. Veuillez traduire, ou parlez avec quelqu'un qui peut le comprendre.

French

この資料には、あなたの飲料水についての大切な情報が書かれています。内容をよく理解するために、日本語に翻訳して読むか説明を受けてください。

Japanese

Bản báo cáo có ghi những chi tiết quan trọng về phẩm chất nước trong cộng đồng quý vị. Hãy nhờ người thông dịch, hoặc hỏi một người bạn biết rõ về vấn đề này.

Vietnamese



City of San Clemente

Utilities Division

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2004 Water Quality Report

*City of San Clemente
Utilities Division*

(Data Collected in 2003)

The 2004 Water Quality Report

Drinking Water Quality

Since 1990, California water utilities have been providing an annual Water Quality Report to their customers. This year's report covers calendar year 2003 water quality testing, and has been prepared in compliance with new regulations called for in the 1996 reauthorization of the Safe Drinking Water Act. The reauthorization charged the United States Environmental Protection Agency (EPA) with updating and strengthening the tap water regulatory program and changed the report's due date to July 1.

EPA and the California Department of Health Services (DHS) are the agencies responsible for establishing drinking water quality standards. To ensure that your tap water is safe to drink, EPA and DHS prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DHS regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. The federal Food and Drug Administration (FDA) also sets regulations for bottled water.

If you have any questions about your water, please contact us for answers...

For information about this report, or your water quality in general, please contact Andrew J. Howard, Utilities Manager, at (949) 366-1553. The San Clemente City Council meets at 7:00 p.m. on the first and third Tuesdays of each month in the City Council Chambers, located at 100 Ave. Presidio in the City of San Clemente. Please feel free to participate in these meetings.

For more information about the health effects of the listed contaminants in the following tables, call the Environmental Protection Agency hotline at (800) 426-4791.

For further information about the City, please visit our website: <http://ci.san-clemente.ca.us>

Want Additional Information?

There's a wealth of information on the internet about Drinking Water Quality and water issues in general. Some good sites — both local and national — to begin your own investigation are:

City of San Clemente

<http://ci.san-clemente.ca.us>

Municipal Water District of Orange County

www.mwdoc.com

Orange County Water District

www.ocwd.org

**Metropolitan Water District
of Southern California**

www.mwdh20.com

**California Department of Health Services,
Division of Drinking Water
and Environmental Management**

www.dhs.cahwnet.gov/ps/ddwem

U.S. Environmental Protection Agency

www.epa.gov/safewater/

The City of San Clemente vigilantly safeguards its water supply and, as in years past, the water delivered to your home meets the standards required by the state and federal regulatory agencies. In some cases, your local utility goes beyond what is required to monitor for additional contaminants that have known health risks.

Unregulated contaminant monitoring helps EPA determine where certain contaminants occur and whether it needs to establish regulations for those contaminants.

What You Need to Know, ...and How it May Affect You

Sources of Supply

Your drinking water is a blend of surface water imported by the Metropolitan Water District of Southern California and ground water extracted from City wells located in the southern part of the City of San Clemente. The ground water represents 5 to 8 percent of the total water source. Metropolitan's imported water sources are the Colorado River and the State Water Project, which draws water from the Sacramento-San Joaquin Delta.

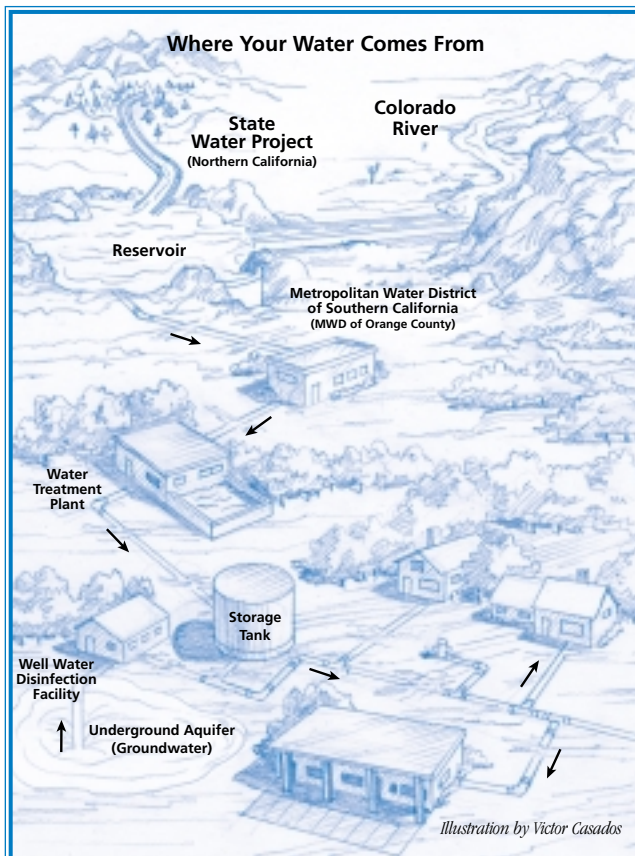
Basic Information About Drinking Water Contaminants

Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. As water travels over the surface of the land or through the layers of the ground, it dissolves

naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of human or animal activity. For most people, the presence of contaminants does not necessarily mean water may be a health risk.

Contaminants that may be present in source water include:

- ◆ Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- ◆ Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining and farming.
- ◆ Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production or mining activities.
- ◆ Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- ◆ Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban storm water runoff and septic systems.



Water Distribution System: Imported water supplied by Metropolitan Water District of Southern California (via MWD of Orange County) and piped to your community by your local water retailer. Local groundwater is pumped out of the ground and provided by your local water retailer.

Cryptosporidium

Cryptosporidium is a microscopic organism that, when ingested, can cause diarrhea, fever, and other gastrointestinal symptoms. The organism comes from animal and/or human wastes and may be in surface water. The Metropolitan Water District of Southern California, which did not detect it in the water, tested your surface water for *Cryptosporidium* in 2003. If it ever is detected, *Cryptosporidium* is eliminated by an effective treatment combination including sedimentation, filtration and disinfection.

The EPA and the federal Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from EPA's safe drinking water hotline at (800) 426-4791 between 9 a.m. and 5 p.m. Eastern Time (6 a.m. to 2 p.m. in California).

Immuno-compromised people

Some people may be more vulnerable to constituents in the water than the general population. Immuno-compromised people, such as those with cancer who are undergoing chemotherapy, persons who have had organ

transplants, people with HIV/AIDS or other immune system disorders, some elderly persons and infants can be particularly at risk of infections. These people should seek advice about drinking water from their healthcare providers.

Disinfection and Disinfection Byproducts

Disinfection of drinking water was one of the major public health advances in the 20th century. Disinfection was a major factor in reducing waterborne disease epidemics caused by pathogenic bacteria and viruses, and it remains an essential part of drinking water treatment today.

Chlorine disinfection has almost completely eliminated from our lives the risks of microbial waterborne diseases. Chlorine is added to your drinking water at the source of supply (groundwater well or surface water treatment plant). Enough chlorine is added so that it does not completely dissipate through the distribution system pipes. This “residual” chlorine helps to prevent the growth of bacteria in the pipes that carry drinking water from the source into your home.

However, chlorine can react with naturally-occurring materials in the water to form unintended chemical byproducts, called disinfection byproducts (DBPs), which may pose health risks. A major challenge is how to balance the risks from microbial pathogens and DBPs. It is important to provide protection from these microbial pathogens while simultaneously ensuring decreasing health risks from disinfection byproducts. The Safe Drinking Water Act requires the U.S. Environmental Protection Agency (EPA) to develop rules to achieve these goals.

Trihalomethanes (THMs) and Haloacetic Acids (HAAs) are the most common and most studied DBPs found in drinking water treated with chlorine. In 1979, the U.S. EPA set the maximum amount of total THMs allowed in drinking water at 100 parts per billion as an annual running average. Effective in January 2002, the Stage 1 Disinfectants / Disinfection Byproducts Rule lowered the total THM maximum annual average level to 80 parts per billion and added HAAs to the list of regulated chemicals in drinking water. Your drinking water complies with the Stage 1 Disinfectants / Disinfection Byproducts Rule. In 2003, the U.S. EPA proposed a Stage 2 regulation that will further reduce allowable levels of DBPs in drinking water without compromising disinfection itself.

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 flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

Import (Metropolitan) Water Assessment

In December 2002, Metropolitan Water District of Southern California completed its source water assessment of its Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to recreation, urban/storm water runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting Metropolitan by phone at (213) 217-6850.

Groundwater Assessment

The City of San Clemente Utilities Division completed an assessment of drinking water sources for its water supply in October 2001. The two sources are considered vulnerable to the following Possible Contamination Activities (PCAs) associated with some contaminants detected in the water supply: Maintenance yards, above-ground fuel tanks, an historic dump site, an electrical switching station, and a site for temporary deposition of street sweeper debris. Residences, parks, sewers, roads and storm drains represent additional PCAs. While PCAs exist within the source water assessment area, the water sources are protected from immediate contamination threats by the confining nature of the aquifer, and the significant depth of well perforations at each water source.

Copies of each water assessment are located at the City of San Clemente Utilities Division administration office, 380 Avenida Pico, Building N, San Clemente, California. You may inspect these water source assessments by contacting the Utilities Manager at (949) 366-1553.

City of San Clemente Groundwater Quality

Chemical	MCL	PHG (MCLG)	Average Amount	Range of Detections	MCL Violation?	Most Recent Sampling Date	Typical Source of Contaminant
Radiologicals							
Alpha Radiation (pCi/L)	15	n/a	<1	ND – 1.2	No	2003	Erosion of Natural Deposits
Radium (pCi/L)	5	n/a	1.4	1.1 – 1.7	No	2003	Erosion of Natural Deposits
Inorganic Chemicals							
Fluoride (ppm)	2	1	0.32	0.32	No	2003	Erosion of Natural Deposits
Nitrate (ppm as N)	10	10	1.1	0.2 – 1.9	No	2003	Fertilizers, Septic Tanks
Nitrate + Nitrite (ppm as N)	10	10	1.1	0.2 – 1.9	No	2003	Fertilizers, Septic Tanks
Secondary Standards*							
Chloride (ppm)	500*	n/a	84	84	No	2003	Erosion of Natural Deposits
Manganese (ppb)	50*	n/a	<20	2.0 – 21	No	2003	Erosion of Natural Deposits
Specific Conductance (µmho/cm)	1,600*	n/a	710	710	No	2003	Erosion of Natural Deposits
Sulfate (ppm)	500*	n/a	98	98	No	2003	Erosion of Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	360	360	No	2003	Erosion of Natural Deposits
Unregulated Contaminants Requiring Monitoring							
Alkalinity (ppm as CaCO ₃)	Not Regulated	n/a	176	176	n/a	2003	Erosion of Natural Deposits
Boron (ppm)	Not Regulated	n/a	0.17	0.17	n/a	2003	Erosion of Natural Deposits
Calcium (ppm)	Not Regulated	n/a	41	41	n/a	2003	Erosion of Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	24	24	n/a	2003	Erosion of Natural Deposits
Potassium (ppm)	Not Regulated	n/a	4.5	3.7 – 5.2	n/a	2002	Erosion of Natural Deposits
Sodium (ppm)	Not Regulated	n/a	72	72	n/a	2003	Erosion of Natural Deposits
Total Hardness (ppm as CaCO ₃)	Not Regulated	n/a	224	224	n/a	2003	Erosion of Natural Deposits
Total Hardness (grains/gal.)	Not Regulated	n/a	13	13	n/a	2003	Erosion of Natural Deposits

ppb = parts-per-billion; ppm = parts-per-million; pCi/L = picoCuries per liter; ntu = nephelometric turbidity units; µmho/cm = micromho per centimeter; ND = not detected; n/a = not applicable; < = average is less than the detection limit for reporting purposes; MCL = Maximum Contaminant Level; (MCLG) = federal MCL Goal; PHG = California Public Health Goal; *Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

Lead and Copper Action Levels at Residential Taps

	Action Level (AL)	Health Goal	90th Percentile Value	Sites Exceeding AL / Number of Sites	AL Violation?	Typical Source of Contaminant
Lead (ppb)	15	2	<5	0 / 30	No	Corrosion of household plumbing
Copper (ppm)	1.3	0.17	0.13	0 / 30	No	Corrosion of household plumbing

Every three years, 30 residences are tested for lead and copper at-the-tap. The most recent set of samples was collected in 2001. Lead was not detected in any of the samples. Copper was detected in thirty samples. None of the samples exceeded the regulatory action level. A regulatory action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Definitions

Public Health Goal (PHG)

The level of a contaminant in drinking water below which there is no known or expected risk to health. Public health goals are set by the California Environmental Protection Agency.

Maximum Contaminant Level (MCL)

The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the public health goals and maximum contaminant level goals 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 contaminant in drinking water below which there is no known or expected risk to health. Maximum contaminant level goals are set by the EPA.

Action Levels (AL)

Health-based advisory levels established by the State

Department of Health Services for chemicals that lack MCLs.

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

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Variance

State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

Treatment Technique (TT)

A required process intended to reduce the level of a contaminant in drinking water.

Measurements

Water is sampled and tested throughout the year. Contaminants are measured in parts per million (ppm), parts per billion (ppb), parts per trillion (ppt), and even parts per quadrillion (ppq). If this is difficult to imagine, think about these comparisons:

Parts per million (mg/L): **Parts per billion (µg/L):**

- 3 drops in 42 gallons
- 1 drop in 14,000 gallons
- 1 second in 12 days
- 1 second in 32 years
- 1 penny in \$10,000
- 1 penny in \$10 million
- 1 inch in 16 miles
- 1 inch in 16,000 miles

It is important to note, however, that even a small concentration of certain contaminants can adversely affect a water supply.

City of San Clemente Distribution System Water Quality

Disinfection Byproducts/ Aesthetics

	MCL (MRDL/MRDLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Contaminant
Total Trihalomethanes (ppb)	80	62	25 – 95	No	Byproducts of chlorine disinfection
Haloacetic Acids (ppb)	60	24	6 – 47	No	Byproducts of chlorine disinfection
Chlorine Residual (ppm)	(4 / 4)	1.4	0.04 – 2.2	No	Disinfectant added for treatment
Color (color units)	15*	1	1	No	Erosion of Natural Deposits
Turbidity (ntu)	5*	0.12	0.03 – 0.47	No	Erosion of Natural Deposits
Odor (threshold odor number)	3*	1	1	No	Erosion of Natural Deposits

Twelve locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; twenty locations are tested monthly for color, odor and turbidity. MRDL = Maximum Residual Disinfectant Level; MRDLG = Maximum Residual Disinfectant Level Goal; ntu = nephelometric turbidity units; ND = not detected; *Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

Bacterial Quality

	MCL	MCLG	Highest Monthly Percent Positives	MCL Violation?	Typical Source of Contaminant
Total Coliform Bacteria	5%	0	3.4%	No	Naturally present in the environment

No more than 5% of the monthly samples may be positive for total coliform bacteria.

The occurrence of 2 consecutive total coliform positive samples, one of which contains fecal coliform/E.coli, constitutes an acute MCL violation.

Metropolitan Water District of Southern California Treated Surface Water

Chemical	MCL	PHG, or (MCLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Contaminant
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Radiologicals – Tested in 2003

Alpha Radiation (pCi/L)	15	n/a	<1	ND – 2.5	No	Erosion of natural deposits
Beta Radiation (pCi/L)	50	n/a	4.1	ND – 5.9	No	Decay of man-made or natural deposits
Uranium (pCi/L)	20	0.5	<2	ND – 2.6	No	Erosion of natural deposits

Inorganic Chemicals – Tested in 2003

Fluoride (ppm)	2	1	0.1	ND – 0.2	No	Erosion of natural deposits
Nitrate and Nitrite as N (ppm)	10	10	0.6	ND – 1.4	No	Agriculture runoff and sewage
Nitrate as N (ppm)	10	10	0.6	ND – 1.4	No	Agriculture runoff and sewage

Secondary Standards* – Tested in 2003

Chloride (ppm)	500*	n/a	81	67 – 105	No	Runoff or leaching from natural deposits
Color (color units)	15*	n/a	1	1	No	Runoff or leaching from natural deposits
Corrosivity (LSI)	non-corrosive	n/a	0.1	-0.2 – 0.4	No	Elemental balance in water
Specific Conductance (µmho/cm)	1,600*	n/a	671	518 – 890	No	Substances that form ions in water
Sulfate (ppm)	500*	n/a	109	41 – 177	No	Runoff or leaching of natural deposits
Total Dissolved Solids (ppm)	1,000*	n/a	384	278 – 528	No	Runoff or leaching of natural deposits
Turbidity (NTU)	5*	n/a	0.05	0.04 – 0.06	No	Runoff or leaching of natural deposits

Unregulated Chemicals – Tested in 2003

Alkalinity (ppm)	Not Regulated	n/a	89	73 – 112	n/a	Runoff or leaching from natural deposits
Boron (ppb)	Not Regulated	n/a	140	100 – 160	n/a	Runoff or leaching from natural deposits
Calcium (ppm)	Not Regulated	n/a	37	24 – 56	n/a	Runoff or leaching from natural deposits
Hardness, total (ppm)	Not Regulated	n/a	164	109 – 237	n/a	Runoff or leaching of natural deposits
Hardness, total (grains/gal)	Not Regulated	n/a	9.6	6.4 – 14	n/a	Runoff or leaching of natural deposits
Magnesium (ppm)	Not Regulated	n/a	18	12 – 24	n/a	Runoff or leaching from natural deposits
pH (pH units)	Not Regulated	n/a	8.2	8.0 – 8.3	n/a	Hydrogen ion concentration
Potassium (ppm)	Not Regulated	n/a	3.2	2.7 – 4.0	n/a	Runoff or leaching from natural deposits
Sodium (ppm)	Not Regulated	n/a	68	55 – 87	n/a	Runoff or leaching from natural deposits

ppb = parts-per-billion; ppm = parts-per-million; pCi/L = picoCuries per liter; ntu = nephelometric turbidity units; µmho/cm = micromhos per centimeter; ND = not detected; < = average is less than the detection limit for reporting purposes; MCL = Maximum Contaminant Level; (MCLG) = federal MCL Goal; PHG = California Public Health Goal; n/a = not applicable; LSI = Langelier Saturation Index; *Contaminant is regulated by a secondary standard.

Turbidity - combined filter effluent	Treatment Technique	Turbidity Measurements	TT Violation?	Typical Source of Contaminant
1) Highest single turbidity measurement	0.3 NTU	0.06	No	Soil run-off
2) Percentage of samples less than 0.3 NTU	95%	100%	No	Soil run-off

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. Low turbidity in Metropolitan's treated water is a good indicator of effective filtration. Filtration is called a treatment technique. A treatment technique is a required process intended to reduce the level of contaminants in drinking water that are difficult and sometimes impossible to measure directly.