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

这份报告中有些重要的信息,

يحتري هذا التقرير على معلومات هـامـة عـن نـوعيـة مـاء الشرب في منـطقتك، يرجي ترجمته، أو ابحث المقرير مع صديـق لك يـفـهـم هـذه المعلومات جيداً.

### Arabic

Der Bericht enthält wichtige informeisnen über die Wasser qualität in threr Umgebung. Der Bericht sollte entweder offizell ueberseftz werden, oder sprechen Sie mit Freunden oder Bekannten, die gufe Englischkenntnisse besitzen *Gemun*  이 보고서에는 귀하가 거주하는 지역의 수질에 관한 중요한 정보 가 들어 있습니다. 이것을 변역 하거나 충분히 이해하시는 친구 와 상의하십시오.

Korean

Questo rapporto contiene informazioni inportanti che riguardano la vostra aqua potabile. Traducetelo, o partate con una persona qualificata in grado di spiegarvelo. *Italian* 

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

Cé rapport contient de information importantes concernant votrea 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 や説明を受けてください。

# lapanese

Bản báo cáo có ghi những chi tiết quan trọng về phẩm chất nước trong củg đóng quý vị. Hảy nhờ người thông dich, hoặc hởi một người bạn biết rõ vễ vấn để nằy.

lietnamese



**El Toro Water District** 24251 Los Alisos Boulevard Lake Forest, California 92630

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# 2004 Water Quality Report

## El Toro Water District

# 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

#### 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:

El Toro Water District www.etwd.com Municipal Water District of Orange County www.mwdoc.com Orange County Water District www.ocwd.org Metropolitan Water District of So. 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/

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

#### 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 Mike King, Water Services Manager, at (949) 837-7050, ext. 203. You may also contact us at our Customer Service Office, El Toro Water District, 24251 Los Alisos Boulevard, Lake Forest, California 92630, at (949) 837-0660.

The El Toro Water District Board of Directors meets regularly at 8:00 a.m. on the fourth Thursday of each month. *Location:* 24251 Los Alisos Boulevard, Lake Forest, California 92630. The public meetings are held at the Customer Service Office location referenced above. The public is welcome and encouraged to participate.

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.

the same protection for public health. The federal Food and Drug Administration (FDA) also sets regulations for bottled water.

The El Toro Water District 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, El Toro Water District 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 surface water imported by the Metropolitan Water District of Southern California. Metropolitan's imported water sources are the Colorado River and the State Water Project, which draws water from the San Francisco-San Joaquin Bay Delta.

#### Basic Information About Drinking Water Contaminants

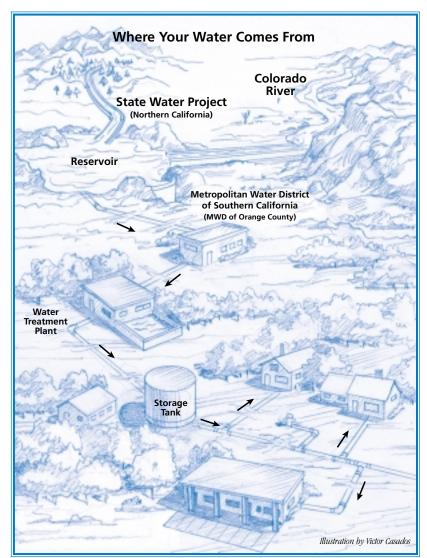
Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. As water travels over the surface of the land or through the layers of the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick 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.

#### 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 that 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.

El Toro Water District Distribution S	System Water Quality
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	MCL (MRDL/MRDLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Contaminant
Total Trihalomethanes (ppb	) 80	64	48 – 86	No	Byproducts of chlorine disinfection
Haloacetic Acids (ppb)	60	27	7.6 – 47	No	Byproducts of chlorine disinfection
Chlorine Residual (ppm)	(4 / 4)	1.9	1.7 – 2.0	No	Disinfectant added for treatment
Turbidity (ntu)	5*	0.18	ND – 0.26	No	Erosion of natural deposits

Eight locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; twenty locations are tested monthly for color, odor and turbidity.

Color and odor were not detected in 2003. 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).

#### 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	ND<1	0 / 34	No	Corrosion of household plumbing
Copper (ppm)	1.3	0.17	0.23	0 / 34	No	Corrosion of household plumbing

Every three years, 34 residences are tested for lead and copper at-the-tap. The most recent set of samples was collected in 2002. Lead was detected in two samples and copper was detected in all thirty-four samples, none of which 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 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.

## 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.

#### AL

Action Level

#### Primary Drinking Water Standard (PDWS)

MCL's for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

#### **Treatment Technique**

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

#### **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.

#### 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:

- 3 drops in 42 gallons
- 1 second in 12 days
- 1 penny in \$10,000
- 1 inch in 16 miles

#### Parts per billion:

- 1 drop in 14,000 gallons
- 1 second in 32 years
- 1 penny in \$10 million
- 1 inch in 16,000 miles

\* It is important to note, bowever, that even a small concentration of certain contaminants can adversely affect a water supply:

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.

#### 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
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 – Tester	d 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.