The 2005 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 2004 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 (USEPA) with updating and strengthening the tap water regulatory program and changed the report's due date to July 1.

USEPA and the California Department of Health Services (CDHS) are the agencies responsible for establishing drinking water quality standards. To ensure that your tap water is safe to drink, USEPA and CDHS prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDHS 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

The City of Newport Beach 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. For example, the Orange County Water District, which manages our groundwater basin, monitors our groundwater for the solvent 1,4-dioxane.

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

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

For information about this report or your water quality information in general, please contact Pete Antista, Utilities Operations Manager at (949) 718-3401. The City of Newport Beach Council meetings begin at 7:00 p.m. on the second and fourth Tuesday of each month and are open to the public. Meetings are held at the Council Chambers located at 3300 Newport Boulevard, Newport Beach. Matters from the public are heard at each meeting. 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 U.S. Environmental Protection Agency hotline at (800) 426-4791.

City of Newport Beach
Utilities Department
P.O. Box 1768
3300 Newport Boulevard
Newport Beach, California 92658-8915

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 تموينة ماء الشرب في منطقتك. يرجى ترجمته، أو ابحث التقرير مع صديق لك يفهم هذه المعلومات جيدا.

Arabic

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

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

French

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

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

Hindi

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

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

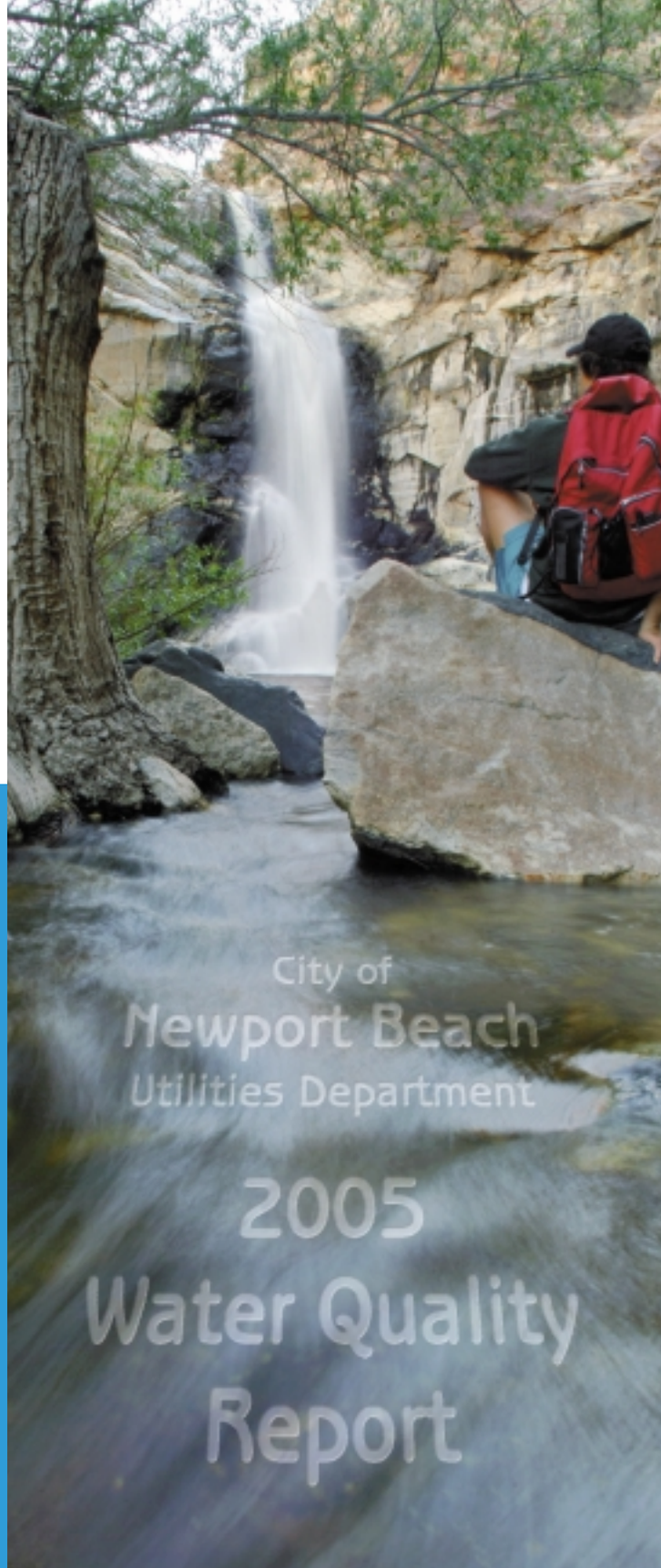
Korean

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

Spanish

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



What You Need to Know About Your Water, and How it May Affect You

Sources of Supply

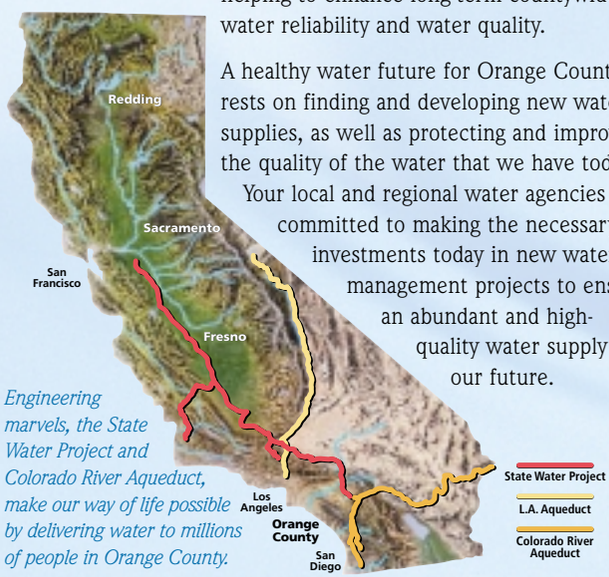
Orange County's water supplies are a blend of groundwater provided by the Orange County Water District (OCWD) and water imported from Northern California and the Colorado River by the Municipal Water District of Orange County (MWDOC) via the Metropolitan Water District of Southern California (MET). Groundwater comes from a natural underground aquifer that is replenished with water from the Santa Ana River, local rainfall and imported water. The groundwater basin is 350 square miles and lies beneath north and central Orange County from Irvine to the Los Angeles border and from Yorba Linda to the Pacific Ocean. More than 20 cities and retail water districts draw from the basin to provide water to homes and businesses. In south Orange County, nearly 100 percent of the water is imported and delivered to the cities and retail water districts, where it is stored in above-ground reservoirs and tanks before being sent to homes and businesses.

Orange County's Water Future

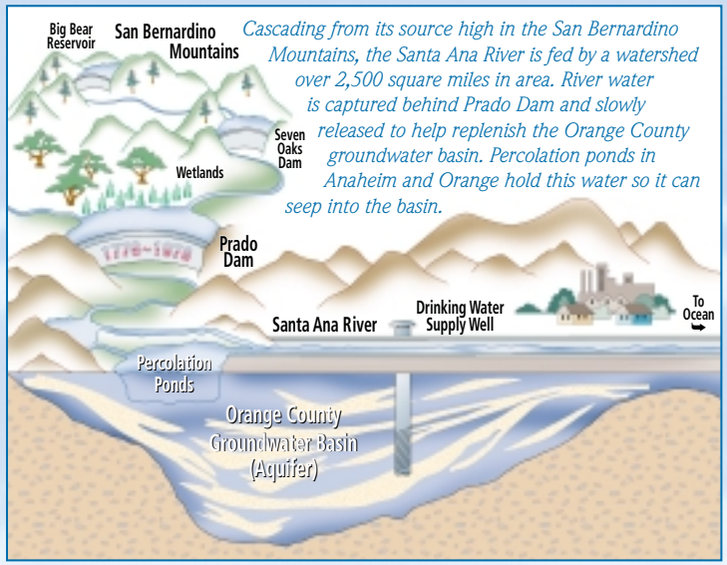
For years, Orange County has enjoyed an abundant, seemingly endless supply of high-quality water. However, as water demand continues to increase statewide, we must be even more conscientious about our water supply and maximize the efficient use of this precious natural resource.

OCWD and MWDOC work cooperatively to evaluate new and innovative water management and supply development programs, including water reuse and recycling, wetlands expansion, recharge facility construction, ocean and brackish water desalination, surface storage and water use efficiency programs. These efforts are helping to enhance long-term countywide water reliability and water quality.

A healthy water future for Orange County rests on finding and developing new water supplies, as well as protecting and improving the quality of the water that we have today. Your local and regional water agencies are committed to making the necessary investments today in new water management projects to ensure an abundant and high-quality water supply for our future.



Engineering marvels, the State Water Project and Colorado River Aqueduct, make our way of life possible by delivering water to millions of people in Orange County.



Cascading from its source high in the San Bernardino Mountains, the Santa Ana River is fed by a watershed over 2,500 square miles in area. River water is captured behind Prado Dam and slowly released to help replenish the Orange County groundwater basin. Percolation ponds in Anaheim and Orange hold this water so it can seep into the basin.

Basic Information About Drinking Water Contaminants

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 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 animal and human activity.

Contaminants that may be present in source water include:

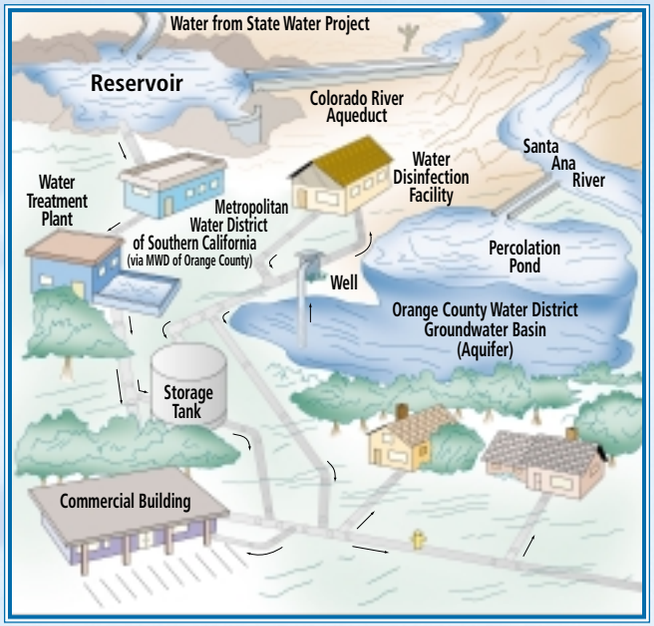
- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic 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.

In order to ensure that tap water is safe to drink, USEPA and the CDHS prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDHS regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. 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 at 1-800-426-4791.

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 2004. If it ever is detected, *Cryptosporidium* is eliminated by an effective treatment combination including sedimentation, filtration and disinfection.

The USEPA 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 USEPA'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).



Imported water — from the Colorado River and northern California — travels hundreds of miles to meet the needs of Orange County. Water is also pumped from the groundwater basin that spans 350 square miles under north and central Orange County.

The Continuing Quality of Your Water is Our Primary Concern

Immuno-Compromised People

Some people may be more vulnerable to contaminants in drinking 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 from infections. These people should seek advice about drinking water from their health care providers.

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).

Water Assessment Reports

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

An assessment of the drinking water sources for City of Newport Beach Utilities Department was completed in December 2002. The groundwater sources are considered most vulnerable to the following activities not associated with detected contaminants: Dry cleaners, gas stations, and known contaminant plumes.

A copy of the complete assessment is available at Department of Health Services Office of Drinking Water, Santa Ana District, 28 Civic Center Plaza Room 325, Santa Ana, CA 92701. You may request a summary of the assessment by contacting the City of Newport Beach Utilities Department at (949) 718-3401.

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:

Municipal Water District of Orange County
www.mwdoc.com

Orange County Water District
www.ocwd.com

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/

Table Definitions

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

MCL (Maximum Contaminant Level): 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 (2nd MCL) are set to protect the odor, taste, and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal): 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.

PHG (Public Health Goal): 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.

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

TT (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.

n/a: Not applicable.

NS: No standard established.

NTU (nephlometric turbidity units): Measurement of the clarity, or turbidity, of water.

pCi/L (picocuries per liter): A measure of the natural rate of radioactive disintegration.

micromhos/cm (micromhos per centimeter): A measure of electrical conductance.

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):*
• 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.

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.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for City of Newport Beach

The City of Newport Beach's water system violated monitoring requirements of drinking water standards over the past year. Although these incidents were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During September 2003 to September 2004 we did not complete all monitoring for coliform bacteria and chlorine residuals and therefore cannot be sure of the quality of your water during that time.

What should I do?

There is nothing you need to do at this time. You do not need to boil your water or take other corrective actions.

The table below lists the contaminants we did not test properly for during the last year, how often we are suppose to sample for these contaminants and how many samples we are suppose to take, how many samples we took, when samples should have been taken, and the date on which the follow-up samples were or will be taken.

Contaminants	Required Sample Frequency	Number of Samples Taken	When All Samples Should Have Been Taken	When Samples Were Taken
Coliform bacteria & Chlorine Residuals	29 routine samples per week. 2 repeat samples should be collected for each sample tested positive for coliform bacteria.	20 to 23 samples per week	29 weekly routine samples during September 2003 to September 2004 and 6 additional repeat samples in July 2004.	The City collected 29 samples per week in October 2004 and November 2004. The City modified its Bacteriological Sample Siting Plan in November 2004. 30 weekly coliform bacteria and chlorine residuals samples are now being taken as of December 2004

What happened? What was done?

The City of Newport Beach has since taken the required samples, as described in the last column of the table above. The samples showed we are meeting drinking water standards.

For more information, please contact Pete Antista, at (949) 718-3401 of the City of Newport Beach.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by the City of Newport Beach.

2004 City of Newport Beach 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	6.2	ND – 12	No	2004	Erosion of Natural Deposits
Uranium (pCi/L)	20	0.5	6	2.1 – 11	No	2004	Erosion of Natural Deposits
Inorganic Chemicals							
Barium (ppm)	1	2	<0.1	ND – 0.11	No	2004	Erosion of Natural Deposits
Fluoride (ppm)	2	1	0.39	0.33 – 0.68	No	2004	Erosion of Natural Deposits
Nitrate (ppm as NO_3)	45	45	7.0	ND – 18	No	2004	Fertilizers, Septic Tanks
Nitrate+Nitrite (ppm as N)	10	10	1.6	ND – 4.1	No	2004	Fertilizers, Septic Tanks
Secondary Standards*							
Chloride (ppm)	500*	n/a	57	33 – 84	No	2004	Erosion of Natural Deposits
Color (color units)	15*	n/a	2	ND – 4	No	2004	Erosion of Natural Deposits
Specific Conductance (µmho/cm)	1,600*	n/a	725	454 – 1,020	No	2004	Erosion of Natural Deposits
Sulfate (ppm)	500*	n/a	108	41 – 196	No	2004	Erosion of Natural Deposits
Surfactants (MBAS) (ppb)	500*	n/a	<20	ND – 70	No	2004	Found in detergents
Total Dissolved Solids (ppm)	1000*	n/a	465	244 – 756	No	2004	Erosion of Natural Deposits
Turbidity (ntu)	5*	n/a	0.18	0.10 – 0.20	No	2004	Erosion of Natural Deposits
Unregulated Contaminants Requiring Monitoring							
Alkalinity (ppm as $CaCO_3$)	Not Regulated	n/a	178	138 – 221	n/a	2004	Erosion of Natural Deposits
Bicarbonate (ppm)	Not Regulated	n/a	218	169 – 270	n/a	2004	Erosion of Natural Deposits
Boron (ppm)	Not Regulated	n/a	0.13	0.12 – 0.13	n/a	2004	Erosion of Natural Deposits
Calcium (ppm)	Not Regulated	n/a	82	40 – 127	n/a	2004	Erosion of Natural Deposits
Hardness (ppm as $CaCO_3$)	Not Regulated	n/a	261	121 – 411	n/a	2004	Erosion of Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	13	5.0 – 23	n/a	2004	Erosion of Natural Deposits
pH (units)	Not Regulated	n/a	7.9	7.8 – 8.1	n/a	2004	Acidity,hydrogen ions
Potassium (ppm)	Not Regulated	n/a	3.2	2.5 – 4.4	n/a	2004	Erosion of Natural Deposits
Sodium (ppm)	Not Regulated	n/a	50	44 – 59	n/a	2004	Erosion of Natural Deposits
Vanadium (ppb)	Not Regulated	n/a	<3	ND – 4.0	n/a	2004	Erosion of Natural Deposits

ppb = parts-per-billion; ppm = parts-per-million; pCi/L = picoCuries per liter; ntu = nephelometric turbidity units; 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
µmho/cm = micromho per centimeter; *Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

City of Newport Beach Distribution System Water Quality

	MCL (MRDL/MRDLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Contaminant
Total Trihalomethanes (ppb)	80	65	5.4 – 97	No	Byproducts of chlorine disinfection
Haloacetic Acids (ppb)	60	22	ND – 43	No	Byproducts of chlorine disinfection
Chlorine Residual (ppm)	(4 / 4)	1.2	ND – 2.0	No	Disinfectant added for treatment
Odor (threshold odor number)	3*	1	1 – 2	No	Erosion of Natural Deposits
Color (color units)	15*	<5	ND – 10	No	Erosion of Natural Deposits
Turbidity (ntu)	5*	0.12	0.02 – 4.2	No	Erosion of Natural Deposits

Twelve locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; thirty-two locations are tested monthly for color, odor and turbidity;
< = less than detection limit for reporitng purposes; 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.

Bacterial Quality	MCL	MCLG	Highest Monthly Percent Positives	MCL Violation?	Typical Source of Contaminant
Total Coliform Bacteria	5%	0	1.5%	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.

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
Copper (ppm)	1.3	0.17	0.3	0 out of 30	No	Corrosion of household plumbing
Lead (ppb)	15	2	9	2 out of 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 2003.
Lead was detected in five homes; two exceeded the regulatory action level (AL). Copper was detected in 26 samples, none exceeded the AL.
A regulatory action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

2004 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						
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 2004						
Fluoride (ppm)	2	1	0.18	0.14 – 0.20	No	Erosion of natural deposits
Nitrate and Nitrite as N (ppm)	10	10	0.5	ND – 0.8	No	Agriculture runoff and sewage
Nitrate as N (ppm)	10	10	0.5	ND – 0.8	No	Agriculture runoff and sewage
Secondary Standards* – Tested in 2004						
Chloride (ppm)	500*	n/a	87	76 – 110	No	Runoff or leaching from natural deposits
Color (color units)	15*	n/a	2	1 – 3	No	Runoff or leaching from natural deposits
Corrosivity (LSI)	non-corrosive	n/a	0.18	0.03 – 0.29	No	Elemental balance in water
Odor (odor units)	3*	n/a	1	1	No	Naturally occurring organic materials
Specific Conductance (µmho/cm)	1,600*	n/a	749	644 – 877	No	Substances that form ions in water
Sulfate (ppm)	500*	n/a	138	92 – 194	No	Runoff or leaching of natural deposits
Total Dissolved Solids (ppm)	1,000*	n/a	435	370 – 521	No	Runoff or leaching of natural deposits
Turbidity (NTU)	5*	n/a	0.05	0.04 – 0.08	No	Runoff or leaching of natural deposits
Unregulated Chemicals - Tested in 2004						
Alkalinity (ppm)	Not Regulated	n/a	89	76 – 98	n/a	Runoff or leaching from natural deposits
Boron (ppb)	Not Regulated	n/a	130	130 – 140	n/a	Runoff or leaching from natural deposits
Calcium (ppm)	Not Regulated	n/a	40	31 – 48	n/a	Runoff or leaching from natural deposits
Hardness, total (ppm)	Not Regulated	n/a	179	139 – 210	n/a	Runoff or leaching of natural deposits
Hardness, total (grains/gal)	Not Regulated	n/a	10	8.1 – 12	n/a	Runoff or leaching of natural deposits
Magnesium (ppm)	Not Regulated	n/a	19	15 – 22	n/a	Runoff or leaching from natural deposits
pH (pH units)	Not Regulated	n/a	8.2	8.1 – 8.2	n/a	Hydrogen ion concentration
Potassium (ppm)	Not Regulated	n/a	3.5	3.0 – 4.0	n/a	Runoff or leaching from natural deposits
Sodium (ppm)	Not Regulated	n/a	80	74 – 94	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	0.1	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.