

## ANNUAL DRINKING WATER QUALITY REPORT (2002)

Rainbow Municipal Water District (RMWD) is pleased to provide you this year's Annual Drinking Water Quality Report for 2002. This report is a snapshot of the quality of water and services we delivered to you last year. Included are details about where your water comes from, what it contains and how it compares to Environmental Protection Agency (EPA) and state standards. Our constant goal is to provide you with a dependable and high quality supply of drinking water.

### *Is my water safe?*

Last year, as in years past, your tap water met all EPA and state drinking water health standards. RMWD vigilantly safeguards its water supplies and again we are proud to report to you that our system has not violated a maximum contaminant level or any other water quality standard.

### *Where does my water come from?*

RMWD purchases 100% of its treated water from the San Diego County Water Authority (SDCWA). The SDCWA in turn purchases its water from the Metropolitan Water District of Southern California (MWD). Water is transmitted to our District from SDCWA and MWD using a complex system of aqueducts and pipes. The water contains a mixture of chlorine and ammonia, which creates a strong disinfectant known as chloramines. Chlorine residual is constantly monitored, and when applicable the District injects small amounts of chlorine into the water at facilities throughout the District. Should a water quality problem ever occur, RMWD is prepared to take remedial action as set forth in an Operational Plan approved by the Department of Health Services.

### *Source water assessment and its availability*

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 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 MWD at (213) 217-6850.

***"Our constant goal is to provide you with a dependable and high quality supply of drinking water."***

RMWD's water storage and distribution system includes over 300 miles of pipeline. We monitor all storage facilities

throughout the day to ensure that fences, drains, diversion structures and liners are in working condition. RMWD supplies are considered to be most vulnerable to wildlife and agriculture.

### *How can I get involved?*

For additional water quality or operational clarification, please contact the Operations Department at (760) 728-1178 or visit our website at [www.rainbowmwd.com](http://www.rainbowmwd.com). We want our valued customers to be informed about their water utility. If you want to learn more, you are invited to attend any of our regularly scheduled Board of Directors meetings. Meetings are held every first Wednesday of the month at 9:00 a.m. at the District headquarters located at 3707 Old Highway 395, Fallbrook, CA. 92028.

## Terms & Abbreviations

In this table, you will find many terms and abbreviations you may not be familiar with. To help you better understand these terms we've provided the following definitions:

**AL - Regulatory Action Level:** The concentration level 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. MCLs are set as close to public health goals and maximum contaminant level goals as is economically or technologically feasible.

**MCLG - Maximum Contaminant Level Goal:** The maximum level of a contaminant where there is no known or expected risk to health. MCLGs are set by the United States EPA.

**ppm - Parts per million or milligrams per liter (mg/L).**

**MRDL - Maximum Residual Disinfectant Level:** The highest level of disinfectant allowed in drinking water.

**MRDLG - Maximum Residual Disinfectant Level Goal:** The level of a drinking water disinfectant below which there is no known or expected risk to health.

**NA - Not applicable.**

**ND - None Detected:** Laboratory analysis indicates that the constituent is not present.

**NTU - Nephelometric Turbidity Units:** A measure of the cloudiness of the water.

**pCi/L - PicoCuries per liter:** A measure of radioactivity.

**PHG - Public Health Goal:** The level of contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

**TT - Treatment Technique:** A required process intended to reduce the level of a contaminant in drinking water.

**ppb - Parts per billion or micrograms per liter (ug/L).**

**Umho/cm - Micromhos per centimeter** (a measure of a substance's ability to convey electricity).

(a) Data shown are annual averages and ranges.

(b) 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.

(c) Total coliform MCLs: For a water system collecting fewer than 40 samples per month, no more than 1 of the monthly samples may be total coliform positive. These MCLs were not violated in 2002.

(d) Calculated from the average of quarterly filtration plant effluent samples.

(e) Calculated from the average quarterly samples.

(f) The Federal and State standards for lead and copper are treatment techniques requiring agencies to optimize corrosion control treatment. Average of highest value is the 90th percentile value.

(g) Standards are for Radium-226 and Radium-228 combined.

Information Collection Rule Results For Disinfection By-Products Collected 8/97 - 12/98	Units	Average	Range
Haloacetonitriles	ppb	8.7	5.6-17
Haloketones	ppb	1.6	1.3-2.2
Chloropicrin	ppb	ND	ND
Trihalomethanes (2002)	ppb	44.1	21-52
Haloacetic acids (2002)	ppb	27	17-44
Chloral hydrate	ppb	5.1	3.5-7.0
Cyanogen chloride	ppb	3.4	2.3-5.5
Total organic halides	ppb	138	115-157
Total chlorine residual (2002)	ppm	2.40	2.35-2.46

We are proud that your drinking water had no violations and meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. However, the EPA has determined that your water meets all drinking water health standards at these levels.

### Why are there contaminants in my drinking water?

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791 or look for it on the EPA's web site ([www.epa.gov/safewater.com](http://www.epa.gov/safewater.com)). 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:

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

*Contaminants... continued on back page*

**PRIMARY STANDARDS — MANDATORY HEALTH-RELATED STANDARDS**

Parameter (a)	Level Detected	Range Average	MCL	PHG MCLG	Major Sources in Drinking Water
<b>CLARITY</b>					
Turbidity NTU (b) (monthly)	0.06	0.05-0.08	5.0	NA	Soil runoff
<b>MICROBIOLOGICAL (c)</b>					
Total Coliform Bacteria	1 in the month of November	0	Presence of coliform bacteria in more than 1 of monthly samples	(0)	Naturally present in the environment
<b>ORGANIC COMPOUNDS</b>					
Haloacetic Acids (e)(ppb)	17-44	29.5	60	NA	By-product of drinking water chlorination
TTHM (e)(ppb) [Total trihalomethanes]	21-52	47	80	NA	By-product of drinking water chlorination
<b>INORGANIC COMPOUNDS</b>					
Aluminum (ppm)	ND	ND	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	ND	ND	50	NA	Erosion of natural deposits; runoff from orchards, glass and electronics production wastes
Copper (f) (ppm) 30 sites sampled o sites above action level	90 <sup>th</sup> percentile value = 0.23		AL=1.3	0.17	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride (ppm)	0.24	0.19-0.26	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharges from fertilizer and aluminum factories
Nitrate (as Nitrogen)(ppm)	ND	ND	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>RADIONUCLIDE (pCi/L)</b>					
Gross Beta particle activity (pCi/L)	ND - 7.48	5.24	50.0	NA	Decay of natural and man-made deposits
Gross Alpha particle activity (pCi/L)	ND - 5.53	3.99	15.0	NA	Erosion of natural deposits
Combined radium (l) (pCi/L)	ND -2.36	1.01	5.0	NA	Erosion of natural deposits
Uranium (pCi/L)	ND - 3.18	2.61	20.0	0.5	Erosion of natural deposits

**SECONDARY STANDARDS**

Chloride (ppm)	83	76-85	500	NA	Runoff/leaching from natural deposits; Seawater influence
Color (units)	2	1-3	15	NA	Naturally occurring organic materials
Hardness (ppm)	241	230-250	NA	NA	Leaching from natural deposits
Sodium (ppm)	79	76-86	NA	NA	Runoff/leaching from natural deposits; Seawater influence
Specific Conductance (umho/cm)	852	830-902	1600	NA	Substances that form ions when in water; seawater influence
Sulfate (ppm)	179	162-191	500	NA	Runoff/leaching from natural deposits; Industrial Wastes

*Este informe contiene informacion muy importante sobre la calidad de su agua beber.  
Traduscalo o hable con alguien que lo entienda bien.*



### Municipal Water District

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#### *Contaminants... continued from page 2*

stations, urban stormwater runoff and septic systems.

- **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 healthy, USEPA and the State Department of Health Services prescribe regulations that limit the amount of certain contaminants in water provided by

public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

RMWD routinely monitors for contaminants in your drinking water according to federal and state laws. The following table shows the results of our monitoring for the period of January 1st to December 31st, 2002.

### **Important Health Information... Do I need to take special precautions?**

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, people 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants

are available from the Safe Drinking Water Hotline (800-426-4791). Cryptosporidium ("crypto") is a microscopic organism found in California's rivers and streams, and comes from animal wastes in the watershed. When ingested by humans, it may result in a variety of gastrointestinal symptoms including diarrhea, nausea and fever. The Metropolitan Water District of Southern California has tested for crypto in its treated water supplies for years. Since 1997, this organism has not been detected in either of Metropolitan's source water or treated water.



*We at RMWD work around the clock to provide top quality water to every tap. We ask that all of our customers help us protect our water sources, which are the heart of our community, our way of life, and our children's future.*