



Municipal Water District

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Contaminants... continued from page 2

- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production and can also come from gas 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 table in this brochure shows the results of our monitoring for the period of January 1st to December 31st, 2004.

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.

Certified Operators

The District’s water operators are certified in both water distribution and water treatment. Drinking water operator competency is critical for the protection of public health and the maintenance of safe, optimal, and reliable operations of water treatment and distribution facilities. Minimum Federal guidelines ensure that operators have the operational skills, knowledge, experience, education, and training required to operate a water system. Once water operators are initially trained and certified, regular recertification will ensure continual competency. The requirements to be issued by EPA and CDHS will provide baseline standards for efficient and effective State water operator certification programs.



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.

RAINBOW MUNICIPAL WATER DISTRICT

ANNUAL DRINKING WATER

QUALITY REPORT 2004

Rainbow Municipal Water District (RMWD) is pleased to provide you this year's Annual Drinking Water Quality Report for 2004. Last year, we conducted more than 332 tests for total coliforms. We detected total coliforms at one site in the month of December, which exceeds the level that the State allows. As we notified you in the past, our water temporarily exceeded drinking water standards. For more information, see the next two paragraphs marked Violation and Open Reservoir Statement in this brochure. This brochure is a snap shot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and State standards. We are committed to providing you with information because informed customers are our best allies.

Violation

The California Department of Health Services issued Citation 05-14-04C-005 to the District on April 30, 2004 for violating the MCL for total coliforms, which was attributed to the water from an open reservoir. Although this incident was not an emergency, as our customers, you have a right to know what happened. We routinely monitor for drinking water contaminants. We collected 30 samples during the month of December. One of our samples showed the presence of total coliform bacteria. The standard is that no more than one sample per month may be positive. This was not an emergency. If it had been, you would have been notified immediately. Coliform bacteria are generally not harmful themselves. *Coliforms are bacteria, which are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.* Usually, coliforms are a sign that there could be a problem with the system's treatment or distribution system (pipes). Whenever we detect coliform bacteria in any sample, we do follow-up testing to see if other bacteria of greater concern, such as fecal coliform or E. coli, are present. We did not find any of these bacteria in our subsequent testing, and further testing shows that this problem has been resolved.

E. coli bacteria were found in the water supply from the Beck Reservoir on February 4, 2005. These bacteria can make you sick, and are a particular concern for people with weakened immune systems. Beck Reservoir is uncovered and exposed to bacterial contamination from a number of sources. Uncovered reservoirs may pose a significant contamination risk to the water supply by contact from humans, animals, birds, windblown materials and vandalism; open reservoirs are also the most vulnerable part of a water system to terrorism. Water coming out of Beck Reservoir is blended with chloraminated water from the San Diego County Water Authority. Although other "routine" samples were OK, it was a public health concern and the consumers have a right to know. The only chlorination provided was via blending with San Diego County Water Authority water. Although the sample taken after the blend did not detect E. Coli, we do not consider this blending operation adequate disinfection. The District opted to isolate Beck reservoir from the distribution system February 7, 2005 rather than issue a Boil Water Order. Beck reservoir was brought back online on February 25, 2005 after a chlorination system was installed on it's outflow.

Open Reservoir Statement

The District's water storage and distribution system includes over 300 miles of pipeline, twelve closed steel tanks, and four open reservoirs. The four open reservoirs contain up to 86% of the District's total storage capacity. When originally built, the reservoirs met health standards; however, today's standards are more stringent and require new reservoirs to be covered. Uncovered reservoirs may pose a significant contamination risk to the water supply by contact from humans, animals, birds, windblown materials and vandalism; open reservoirs are also the most vulnerable part of a water system to terrorism. Because these reservoirs are not covered, The District monitors all storage facilities twice a day in accordance with the California Department of Health Services (CDHS) Open Reservoir Policy to ensure that fences, drains, diversion structures, and liners are in the very best condition. Bacteriological test are taken at each open reservoir on a weekly basis. The finished water leaving these open reservoirs is disinfected by injecting small amounts of chlorine before it enters the distribution system.

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.

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. Primary MCLs are set as close to public health goals (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

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 U.S. Environmental Protection Agency.

mg/L or ppm - Milligrams per liter (mg/L) or Parts per million (ppm) *1 part per million = 1 drop in 10 gallons.*

MRDL - Maximum Residual Disinfectant Level: The level of disinfectant added for water treatment that may not be exceeded at the consumer's tap.

MRDLG - Maximum Residual Disinfectant Level Goal: The level of disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

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 Environmental Agency.

PDWS - Primary Drinking Water Standard: MCLs and MRDLs 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.

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

ug/L or ppb - Micrograms per liter (ug/L) or Parts per billion (ppb). *1 part per billion is = 1 drop in 10,000 gallons.*

(a) Data shown are annual averages and ranges.

(b) 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 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. This MCL was violated in December, 2003.

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

(e) Calculated from the running annual average of 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.

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 (c).

Introduction... *continued from front page*

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.

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. 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.

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 contami-

nants. 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). 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.

Contaminants... continued on back page

PRIMARY STANDARDS – MANDATORY HEALTH-RELATED STANDARDS

Parameter (a)	Average	Range	MCL	PHG MCLG	Major Sources in Drinking Water
MICROBIOLOGICAL					
Total Coliform Bacteria (c)	□ in the month of December	□□□□	No more than 1 positive monthly sample	0	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.
DISINFECTION BY-PRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BY-PRODUCTS					
Haloacetic Acids(HAA5) (e)(ppb)	□□	□□□□□	60	NA	By-product of drinking water chlorination.
TTHM (e)(ppb) [Total trihalomethanes]	□□	□□□□□	80	NA	By-product of drinking water chlorination.
Total Chlorine Residual [MRDL] (ppm)	□□□	□□□□□□	4	NA	Drinking water disinfectant added for treatment.
DBP Precursors Control (TOC) (ppm)	2.4	2.0-2.7	TT	0.7	Various natural and man-made sources.
INORGANIC COMPOUNDS					
Copper (f) (ppm) 30 sites sampled, 0 sites above action level	0.38	0.1-0.43	AL=1	0.17	Internal corrosion of household plumbing systems; erosion of natural deposits.
Fluoride (ppm)	□□□□	□□□□□□	□□□ 2	1	Erosion of natural deposits; water additive for tooth health.
Lead (f) (ppm) 30 sites sampled, 0 sites above action level	ND	<5-6	AL=15	2	Internal corrosion of household water plumbing systems; Discharges from industrial manufacturers, erosion of natural deposits.
RADIONUCLIDE (pCi/L)					
Gross Alpha Particle Activity (pCi/L)	3.41	□□ □ □ □ □	15	NA	Erosion of natural deposits.
Gross Beta Particle Activity (pCi/L)	ND	□□ □ □ □ □	50	NA	Decay of natural and man-made deposits.
Combined Radium (pCi/L)	ND	□□	5.0	NA	Erosion of natural deposits.
Uranium (pCi/L)	ND	ND - 2.39	20.0	0.5	Erosion of natural deposits.
SECONDARY STANDARDS - AESTHETICS STANDARDS					
Chloride (ppm)	□□	□□□□□	500	NA	Runoff/leaching from natural deposits; Seawater influence.
Color (units)	2	1-3	15	NA	Naturally occurring organic materials.
Specific Conductance (umho/cm)	□□□	□□□□□□	1600	NA	Substances that form ions when in water; seawater influence.
Sulfate (ppm)	□□□	□□□□□□	500	NA	Runoff/leaching from natural deposits; industrial wastes.
Total Dissolved Solids (TDS) (ppm)	□□□	□□□□□□	1000	NA	Runoff/leaching from natural deposits.
Turbidity (monthly) (NTU) (b)	0.06	0.05-0.07	5	NA	Soil runoff.
ADDITIONAL PARAMETERS					
Hardness (ppm)	□□□	□□□□□□	NA	NA	Leaching from natural deposits.
Sodium (ppm)	□□	□□□□□	NA	NA	Runoff/leaching from natural deposits; Seawater influence.
ADDITIONAL PARAMETERS					
Boron (ppb)	□□□	□□□□□□	NA	AL=1000	Leaching from natural deposits.