Annual WATER QUALITY REPORT

Reporting Year 2012

Presented By
Ramona Municipal Water District

PWS ID#: 3710019

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

There When You Need Us

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2012. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please remember that we are always available to assist you should you ever have any questions or concerns about your water.

Water Conservation

Water conservation is a way of life in Southern California. For water-saving incentives for both residential and commercial customers, visit www.rmwd.org/conservation or www.sdcwa.org/conservation. Visit watersmartsd.org for indoor and outdoor conservation ideas!

Water Main Flushing

In neighborhoods throughout Ramona, you may occasionally see District staff releasing water from fire hydrants. Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through them. RMWD is conscious of the value of water. We conduct flushing only when necessary, and do our best to minimize the amount of water utilized.

Information on the Internet

The U.S. EPA Office of Water (www.epa.gov/watrhome) and the Centers for Disease Control and Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation, and public health. Also, the Division of Drinking Water and Environmental Management has a Web site (www.cdph.ca.gov/certlic/drinkingwater/Pages/default.aspx) that provides complete and current information on water issues in California, including valuable information about our watershed.

Where Does My Water Come From?

The San Diego County Water Authority (CWA) purchases water from the Metropolitan Water District of Southern California (MWD). This water is a blend of surface water from the Colorado River and runoff from the Northern California Sierra Nevada Mountains. It is treated at the Twin Oaks Valley Treatment Plant, located in San Diego County, and the MWD Lake Skinner Filtration Plant located in Riverside County.

Your Emergency Contact Information

Is your emergency contact information current? Experience shows that many water customer accounts have out-of-date information. When this occurs, we are unable to reach you during emergency water shutdowns or other emergencies affecting our town.

Please contact our Customer Service Department, at (760) 788-2200, to update your telephone numbers (home, cell, and work) in our records. You may also email the information to customerservice@rmwd.org. Please include your name, water account number, and service address.

Thank you for taking a moment to help us communicate with you.

Public Meetings

You are invited to attend our district board meetings. We meet the second and fourth Tuesdays of each month, at 2 p.m., at the Ramona Community Center, 434 Aqua Lane, Ramona.

Board of Directors:

- Darrell Beck, President, Division 1
- Joe Zenovic, Vice President, Division IV
- George Foote, Secretary, Division V
- Rex Schildhouse, Treasurer, Division III
- Kit Kesinger, Director, Division II

David Barnum, General Manager

San Diego County Water Authority -- Water Investments Take Care of Business & Residents

Strategic, long-term planning helps maintain water supplies!

The RMWD purchases 100 percent of its water from the San Diego County Water Authority.

Anyone who runs a household realizes that it takes hard work and financial commitment to keep things in good working order. The region's water delivery system faces similar challenges -- except the stakes involve a $188 billion economy that has a direct financial impact on more than 3 million people who call San Diego County home. Strategic investments in the water system have helped the region's gross domestic product grow by 70 percent between 1991 and 2013.

That couldn't have happened without water agencies investing in maintenance and addressing future needs even preparing for natural disasters. Water managers are continually assessing thousands of miles of pipe and hundreds of related structures that move water when and where it's needed as conditions change. Sometimes major pieces of infrastructure, such as large-diameter pipelines, pumps, or other facilities, need to be rehabilitated or repaired so they don't break and create more costly problems.

Water agencies also are investing in new sources of supply such as desalination to make sure we can better withstand droughts and meet the needs of future generations. This work does require money -- like repainting the house -- but it offers the region real value by ensuring reliable access to an invaluable resource.

How Do Water Softeners Impact Our Sewer Systems and Recycled Water?

Self-regenerative water softeners, those that use salt, often create recycling and sewage treatment issues. Not only do they waste a significant amount of water, they increase the salinity of wastewater because they discharge brine (a salty waste by-product, high in sodium) into the sewer. Salinity, commonly known as Total Dissolved Solids (TDS), is strictly regulated by state and federal agencies. This extra salt TDS must be removed by very expensive treatment processes at the water reclamation plant that produces recycled water. This recycled water is much more costly to produce when the wastewater to be treated contains high levels of salt.

Recycled water is primarily used for landscape and agricultural irrigation. High salinity levels in recycled water cause plant damage and plant stress. The salt can bind the soil in the summer at a time when plants need water the most.

RMWD Legislative Code prohibits the use of water softening units that discharge brine into the public sewer.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline.

Questions?

For more information about this report, or for any questions relating to your drinking water, please call Greg Marty, Water Quality Lab Analyst, at (760) 789-1330.

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Source Water Assessment

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

Substances That Could Be in Water

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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the California Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department 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.

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 can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, that 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 by-products of industrial processes and petroleum production and that can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

Radioactive Contaminants, that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Sampling Results

During the past year, the RMWD has taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

The RMWD will next sample for lead and copper in the third quarter of 2013. There were no Total Coliforms or Fecal Coliforms detected in the water distribution system.

REGULATED SUBSTANCES

				Ramona Municipal Water District		Metropolitan Water District Skinner Plant		San Diego County Water Authority			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppm)	2012	1	0.6	NA	NA	NA	NA	0.030	ND–0.044	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	2012	10	0.004	NA	NA	NA	NA	3.5[4]	3.5–3.5	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2012	1	2	NA	NA	NA	NA	0.053[4]	0.053–0.053	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Bromate (ppb)	2012	10	0.1	NA	NA	6.5	1.2–11	NA	NA	No	By-product of drinking water disinfection
Chloramines (ppm)	2012	[4.0 (as Cl2)]	[4 (as Cl2)]	2.88	0.30–3.8	2.8	1.5–2.8	NA	NA	No	Drinking water disinfectant added for treatment
Control of DBP Precursors [TOC] (ppm)	2012	TT	NA	NA	NA	TT	TT–TT	TT	TT–TT	No	Various natural and man-made sources
Fluoride (ppm)	2012	2.0	1	NA	NA	0.8	0.7–0.9	0.7	0.2–0.9	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity[1] (pCi/L)	2012	15	(0)	NA	NA	ND	ND–3	NA	NA	No	Erosion of natural deposits
Gross Beta Particle Activity (pCi/L)	2012	50	(0)	NA	NA	ND	ND–5	3.4	3.4–3.5	No	Decay of natural and man-made deposits
Haloacetic Acids[2] (ppb)	2012	60	NA	15.3	5.6–19.0	2.7	1.4–6.1	3.7	ND–5.3	No	By-product of drinking water disinfection
Heterotrophic Plate Count Bacteria (Units)	2012	Surface water treatment = TT	HPC = NA; Others = (0)	3.0	ND–190	NA	NA	NA	NA	No	Naturally present in the environment
Nitrate [as nitrate] (ppm)	2012	45	45	NA	NA	NA	NA	1.8	1.35–2.25	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes][2] (ppb)	2012	80	NA	39.2	32.0–44	14	10–19	43	28–75	No	By-product of drinking water disinfection
Turbidity[3] (NTU)	2012	TT	NA	0.28	0.04–0.28	0.06	ND–0.06	0.04	0.02–0.04	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2012	TT	NA	100	NA	100	NA	100	NA	No	Soil runoff
Uranium (pCi/L)	2012	20	0.43	NA	NA	1	ND–2	1.3	1.0–1.7	No	Erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2010	1.3	0.3	0.34	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2010	15	0.2	0	0/30	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES

				Metropolitan Water District Skinner Plant		San Diego County Water Authority			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppm)	2012	0.2	NS	NA	NA	0.030	ND–0.044	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2012	500	NS	76	75–77	78[4]	78–78	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2012	15	NS	1	1–1	ND	NA	No	Naturally occurring organic materials
Corrosivity [as Aggressiveness Index] (Units)	2012	Noncorrosive	NS	12.2	12.2–12.3	12[4]	12–12	No	Natural or industrially influenced balance of hydrogen, carbon, and oxygen in the water; affected by temperature and other factors
Manganese (ppb)	2012	50	NS	NA	NA	ND	ND–4.5	No	Leaching from natural deposits
Odor–Threshold (TON)	2012	3	NS	2	1–2	1[4]	1–1	No	Naturally-occurring organic materials
Silver (ppb)	2012	100	NS	NA	NA	9[4]	9–9	No	Industrial discharges
Specific Conductance (µS/cm)	2012	1,600	NS	640	440–780	640[4]	640–640	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2012	500	NS	110	96–120	96[4]	96–96	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2012	1000	NS	360	400–380	370[4]	370–370	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2012	5	NA	0.1	ND–0.1	NA	NA	No	Soil runoff

OTHER SUBSTANCES

		Ramona Municipal Water District		Metropolitan Water District Skinner Plant		San Diego County Water Authority		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Alkalinity (ppm)	2012	NA	NA	93	75–110	92[4]	92–92	Naturally occuring
Boron (ppb)	2012	NA	NA	130	130–130	140[4]	140–140	Runoff/leaching from natural deposits; industrial wastes
Calcium (ppm)	2012	NA	NA	38	34–41	37[4]	37–37	Runoff/leaching from natural deposits
Chlorate (ppb)	2012	NA	NA	58	ND–80	218	190–280	Runoff/leaching from natural deposits
Chromium VI [Hexavalent Chromium] (ppb)	2012	NA	NA	NA	NA	0.07	0.04–0.19	Industrial waste discharge; can occur naturally
Hardness (ppm)	2012	NA	NA	170	120–220	160[4]	160–160	Naturally occuring
Magnesium (ppm)	2012	NA	NA	16	15–17	16[4]	16–16	Runoff/leaching from natural deposits
N-Nitrosodimethylamine [NDMA] (ppt)	2012	NA	NA	ND	ND–2.8	2.7[4]	2.7–2.7	By-product of drinking water chloramination; industrial processes
pH (Units)	2012	8.4	7.8–8.9	8.3	8.1–8.5	7.8[4]	7.8–7.8	Naturally occuring
Potassium (ppm)	2012	NA	NA	3.5	3.4–3.6	3.5[4]	3.5–3.5	Runoff/leaching from natural deposits
Sodium (ppm)	2012	NA	NA	66	65–66	6.8[4]	6.8–6.8	Runoff/leaching from natural deposits
TOC (ppm)	2012	NA	NA	2.1	1.8–2.3	2.4	2.0–3.3	Various natural and man-made sources

[1] Effective 6/11/2006, the gross beta particle activity MCL is 4 millirem/year annual dose equivalent to the total body or any internal organ. 50 pCi/L is used as a screening level.

[2] Initial Distribution System Evaluation (IDSE) is an important part of the Stage 2 Disinfection By-Products Rule (DBPR). The IDSE is a one-time study conducted by some water systems that provide disinfection or chlorination, to identify distribution system locations with concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select monitoring representative locations for Stage 2 DBPR. Not all water systems were required to perform an IDSE.

[3] Turbidity is a measure of the cloudiness of the water. We monitor turbidity because it is a good indicator of the distribution system's water quality.

[4] Single sample taken.

Definitions

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

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

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 (SMCLs) 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. EPA.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

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

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 EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

TON (Threshold Odor Number): A measure of odor in water.

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