



*Annual* **WATER**  
**QUALITY**  
**REPORT**

*Reporting Year 2011*



*Presented By* \_\_\_\_\_  
City of Rohnert Park

PWS ID#: CA4910014

## Commitment to Community

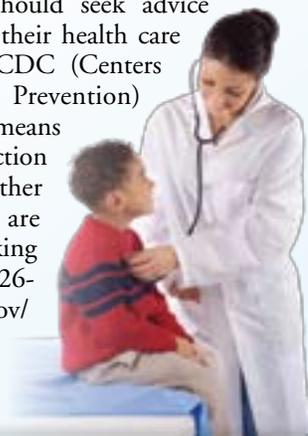
We are pleased to provide you with our annual water quality report covering all testing performed between January 1 and December 31, 2011. Over the years we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for 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.

Included in this report is a summary of results from water quality tests performed in 2011, an explanation of our City's water sources, and information on how to interpret the data. This "Consumer Confidence Report" is required by law - we are pleased to share the results with you.

If you are interested in learning more about water quality or the City's water utility, please direct your questions, concerns or comments to the Department of Public Works at (707) 588-3300.

## 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>.



## 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 State 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, which are by-products of industrial processes and petroleum production and which 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.

## 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 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](http://www.epa.gov/safewater/lead).

## Community Participation

Citizens may address comments directly to the Rohnert Park City Council, which meets on the second and fourth Tuesday of each month at 5:00 p.m. in City Hall – 130 Avram Avenue. City Council meetings are open to the public, with corresponding agendas posted to the City's website prior to each meeting – [www.rpcity.org](http://www.rpcity.org).

## Drinking Water Source Assessment

The Sonoma District, Department of Public Health, completed a Drinking Water Source Assessment for the City of Rohnert Park in January 2003, which is in accordance with guidelines issued by the State Department of Public Health. The purpose of the Drinking Water Source Assessment is to determine if water sources in the community are vulnerable to contamination. It also includes an inventory of potential sources of contamination within the delineated area and provides a determination of the water supply's susceptibility to contamination by the identified potential sources.

According to the Drinking Water Source Assessment Plan, our water sources are most vulnerable to the following activities: chemical/petroleum storage, pesticide/fertilizer used in association with parks and golf courses (note: pesticides and fertilizers are no longer used in City parks), transportation corridors (railroad/freeways/highways/road right-of-ways), storm drain discharge points, stormwater detention facilities, agricultural drainage, golf course ponds, high-density housing, and utility stations (maintenance areas). If you would like to review the plan, please feel free to contact our office during regular business hours – (707) 588-3336.

## Source Water Description

The City of Rohnert Park delivers treated water to its customers produced primarily by the Sonoma County Water Agency (SCWA) – approximately 81 percent in 2011. Water produced by SCWA originates from six Ranney Collectors (or Caissons) along the Russian River; seven production wells along the Russian River; and three production wells along the Cotati Aqueduct in the Santa Rosa Plain. The primary water supply received from SCWA is supplemented and blended with water from a series of 29 groundwater wells located throughout the City. Prior to blending, the water distributed from the City wells is treated with a chlorine disinfectant to protect the community against microbial contaminants. Combined, the City's water system provides roughly 1.45 billion gallons of clean drinking water to the community every year.

Additionally, Rohnert Park has seven water storage tanks with a total capacity of approximately 4.5 million gallons of treated water. This source is used to balance water system pressure during peak demand periods and also provides for fire protection.

## QUESTIONS?

This "Consumer Confidence Report" is required by law and includes a summary of results from water quality tests performed in 2011, an explanation of our City's water sources, and information on how to interpret the data. If you have any questions about the information in this report, or if you are interested in learning more about the City's water system, please contact the Department of Public Works by phone at (707) 588-3303 or visit our office located at 600 Enterprise Drive.

## Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. Only those substances with detectable amounts are required to be included in this report. You may find the list of definitions included at the end of this report helpful to you when interpreting the water quality results listed below.

The state allows us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data is included along with the year in which the samples were taken.

### REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	City of Rohnert Park		Sonoma County Water Agency		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
<b>1,2-Dichloroethane</b> (ppt)	2011	500	400	96.21	88–110	NA	NA	No	Discharge from industrial chemical factories
<b>Aluminum</b> (ppm)	2011	1	0.6	0.001	ND–0.01	0.001	ND–0.06	No	Erosion of natural deposits; residue from some surface water treatment processes
<b>Arsenic</b> (ppb)	2011	10	0.004	3.81	ND–7.3	NA	NA	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
<b>Barium</b> (ppm)	2011	1	2	0.06	ND–0.16	NA	NA	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
<b>Chromium</b> (ppb)	2011	50	(100)	NA	NA	0.31	ND–0.60	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
<b>Fluoride</b> (ppm)	2011	2.0	1	0.05	ND–0.16	0.13	0.11–0.15	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
<b>Gross Alpha Particle Activity</b> (pCi/L)	2011	15	(0)	0.40	0.26–0.65	NA	NA	No	Erosion of natural deposits
<b>Haloacetic Acids<sup>1</sup></b> (ppb)	2011	60	NA	10.9	7.7–17.8	NA	NA	No	By-product of drinking water disinfection
<b>Nitrate [as NO<sub>3</sub>]</b> (ppm)	2011	45	45	11	ND–36	0.10	ND–1.3	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
<b>TTHMs [Total Trihalomethanes]<sup>1</sup></b> (ppb)	2011	80	NA	23.25	18–28	NA	NA	No	By-product of drinking water disinfection
<b>Total Coliform Bacteria [Total Coliform Rule]<sup>2</sup></b> (% positive samples)	2011	More than 5.0% of monthly samples are positive	(0)	5.26	NA	NA	NA	Yes	Naturally present in the environment
<b>Trichlorofluoromethane</b> (ppb)	2011	150	700	0.02	ND–0.05	NA	NA	No	Discharge from industrial factories; degreasing solvent; propellant and refrigerant
<b>Turbidity<sup>3</sup></b> (NTU)	2011	TT	NA	4.6	0.05–4.6	4.8	ND–4.8	No	Soil runoff

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
<b>Copper<sup>4</sup></b> (ppm)	2010	1.3	0.3	0.195	0/32	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
<b>Lead<sup>4</sup></b> (ppb)	2010	15	0.2	3.1	0/32	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

## SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	City of Rohnert Park		Sonoma County Water Agency		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
<b>Chloride</b> (ppm)	2011	500	NS	17.21	7.6–37	8.5	5.5–25	No	Runoff/leaching from natural deposits; seawater influence
<b>Color</b> (Units)	2011	15	NS	1.4	ND–10	0.31	ND–4.0	No	Naturally occurring organic materials
<b>Copper</b> (ppm)	2011	1.0	NS	0.00455	ND–0.05	NA	NA	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
<b>Corrosivity</b> (Units)	2011	Non-corrosive	NS	12	11.7–12.4	11.2	10.7–12.0	No	Natural or industrially influenced balance of hydrogen, carbon, and oxygen in the water; affected by temperature and other factors
<b>Iron</b> (ppb)	2011	300	NS	122.31	ND–778	NA	NA	No	Leaching from natural deposits; industrial wastes
<b>Manganese</b> (ppb)	2011	50	NS	42.45	ND–267	5.77	ND–75	No	Leaching from natural deposits
<b>Odor–Threshold</b> (TON)	2011	3	NS	NA	NA	0.58	ND–6.3	No	Naturally occurring organic materials
<b>Specific Conductance</b> (µS/cm)	2011	1,600	NS	425	280–600	257	240–270	No	Substances that form ions when in water; seawater influence
<b>Sulfate</b> (ppm)	2011	500	NS	13.27	2.3–29	11.5	2.1–16	No	Runoff/leaching from natural deposits; industrial wastes
<b>Total Dissolved Solids</b> (ppm)	2011	1,000	NS	282	210–380	151	130–200	No	Runoff/leaching from natural deposits
<b>Zinc</b> (ppm)	2011	5.0	NS	0.09	ND–0.94	NA	NA	No	Runoff/leaching from natural deposits; industrial wastes

## UNREGULATED AND OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	City of Rohnert Park		Sonoma County Water Agency		TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	
<b>Bicarbonate</b> (ppm)	2011	233.6	176–316	108	94–120	Natural geology
<b>Calcium</b> (ppm)	2011	33.5	10–58	20	12–26	Natural geology
<b>Magnesium</b> (ppm)	2011	17.32	5.2–30	11.6	2–17	Natural geology
<b>pH</b> (Units)	2011	7.61	7.3–8.2	7.4	6.9–8.2	Measure of acidity of water
<b>Potassium</b> (ppm)	2011	2.97	1.7–4.8	1.2	1.0–1.7	Natural geology
<b>Sodium</b> (ppm)	2011	31.5	18–71	13.4	6.7–37	Sodium refers to the salt present in the water and is generally naturally occurring
<b>Total Alkalinity (as CaCO<sub>3</sub>)</b> (ppm)	2011	191.3	144–259	108	94–120	Natural geology
<b>Total Hardness<sup>5</sup></b> (ppm)	2011	155.6	46–270	97.2	38–126	Water hardness is measured by the sum of polyvalent cations present in the water, generally magnesium and calcium, which are typically naturally occurring

<sup>1</sup>We were required by the U.S. EPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE) and is intended to identify locations in our water system that have elevated disinfection by-product concentrations. Disinfection by-products (e.g. HAA's and TTHM's) result from continuous disinfection of drinking water and form when disinfectants combine with organic matter that naturally occurs in the source water.

<sup>2</sup>On May 13, 2011, our water system failed to comply with the maximum contaminant level (MCL) for total coliform bacteria during the month of April 2011. Initial Public Notice advising of this situation was mailed to all of the City's water customers on August 11, 2011. Subsequent re-sampling indicated no bacteria were present. We are confident that the positive tests were not indicative of actual water quality, but rather were related to a handling error during the sampling test procedures. 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. All follow-up samples indicated that no harmful bacteria were found in your drinking water. We have adopted improved disinfection procedures to ensure that this will not occur again.

<sup>3</sup>Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

<sup>4</sup>Next round of sampling scheduled for 2013.

<sup>5</sup>Rohnert Park water may be considered moderately hard when determining settings for water-using appliances such as dishwashers, filters, and water softeners.

## Definitions

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

**$\mu\text{S}/\text{cm}$  (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.