California's drought is officially over but we still need to use our water wisely!

In March 2011, following above normal statewide rainfall and mountain snowpack, Governor Jerry Brown proclaimed an end to the state's drought, but urged Californians to keep conserving water as we move into the spring and summer months. This is especially true in Roseville as the City continues to strive to meet its regional, state and federally mandated efficiency requirements. Even though Roseville received its full water allocation for 2011, we still urge you to be water smart and use this precious resource wisely. We have several programs and services that make saving water easy. Take advantage of our generous rebates when you install a high-efficiency toilet, install a high-efficiency washing machine, remove your lawn to plant water efficient plants, or upgrade your irrigation system.

Visit us online at **www.roseville.ca.us/savewater** for program information and to download an application today. If you would like our help to diagnose problems in your irrigation system, need help programming your irrigation controller, or you think you have a leak in or around your home contact us at 774-5761 to schedule a Water Wise House Call. Appointments are scheduled Monday through Friday from 7:30 am to 4:00 pm. Our services are free and informative and our staff is professionally trained with techniques that will teach you how to use water wisely. Call us. We can help.

CITY OF ROSEVILLE CALIFORNIA
Environmental Utilities
2005 Hilltop Circle
Roseville, CA 95747

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

Water Quality Report 2010

Environmental Utilities-Water

CITY OF ROSEVILLE CALIFORNIA

Drinking Water

The City of Roseville is pleased to present you with this annual report on city provided drinking water. As in past years, compliance with all state and federal regulations regarding water quality have been met or exceeded by the water provided. The safety and protection of the water system also continues as a top priority, with vulnerability assessment and security measures being implemented on an ongoing basis.

Under the guidelines provided by the U.S. Environmental Protection Agency (EPA) and the California Department of Public Health (State), the City of Roseville monitors and tests the drinking water from source to tap. Information provided in this report is for the water provided January through December 2010, and includes details about where your water comes from, what it contains, and how it compares to the standards set by the regulatory agencies.

We hope this report will provide the answers to any questions you may have about the drinking water supplied by the City of Roseville. Additional information may be obtained by contacting the Roseville Water Utility at 916-774-5750, or through the city website at **www.roseville.ca.us/eu**.

Water Sources

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 2010, only surface water was used in Roseville.

Roseville maintains a water distribution system covering the entire city with pipelines ranging in size from four inches to over five feet in diameter. Water samples are collected throughout the system and tested on a weekly basis to ensure quality maintained during delivery to customers.

Surface Water - Roseville

The surface water source from Folsom Lake is snow melt water that originates in the Sierra Nevada Mountains. The melting snow flows into the north, middle, and south forks of American River and is ultimately stored in Folsom Lake.

The Folsom Lake water is conveyed to and treated at Roseville's 100 million gallon per day water treatment plant. The treatment process consists of coagulation, sedimentation, filtration and disinfection. Fluoride is added for the health of residents and pH is adjusted to reduce corrosion.

Surface Water - PCWA

As part of a regional water use agreement, the City of Roseville receives up to 10 million gallons per day (MGD) of treated surface water from Placer County Water Agency's (PCWA) Foothill – Sunset water treatment plant. Water from PCWA originates in the Sierra snow pack from the Yuba-Bear and American River watersheds.

The source water travels through a network of canal systems operated and maintained by PCWA and PG&E before it reaches the water treatment plant. The Foothill – Sunset water treatment plant utilizes coagulation, high rate settling via microsand flocculation, filtration, and disinfection. Water is fluoridated at the entry port to Roseville.

Roseville Groundwater Sources

Currently, the city operates and maintains four permanent (regular) groundwater wells and one standby well for emergency and backup supply. Groundwater supply is important because it will provide added water reliability to Roseville's customers in case of droughts and other water supply challenges facing Roseville. The wells are equipped with Aquifer Storage and Recovery (ASR) capabilities. ASR stores treated surface water into the ground for retrieval at a later date when water is needed. Groundwater is typically rain and snow that soaks through the ground and continues to move downward through pore (small openings) space in the soil until it reaches the aquifer under the city. The groundwater meets all water quality and health standards just like treated surface water, but may have aesthetic differences and sometimes is noticeable to some consumers. Two-thirds of the Californians along with half of all Americans (more than 95 percent for rural Americans) get their household water supplied from groundwater.

In 2010, no groundwater was used for the city.

Source Water Protection

A community's drinking water supply is valuable and needs protection. The quality and reliability of source water can have a significant impact on a community's economy and quality of life. The city actively participates in several source water protection programs.

Drinking Water Source Assessment Program

In March 2002, the City of Roseville completed a source water assessment on our water supply from Folsom Lake to determine if there were any potentially contaminating activities present.

The source is considered most vulnerable to the following activities associated with contaminants detected in the water supply: Folsom Lake State Recreation Area facilities (marina, restrooms, recreational areas, parking lots, and storm drains) and residential sewer and septic systems.

The source is also considered vulnerable to the following activities not associated with any detected contaminants: illegal activities and dumping, fertilizer, pesticide and herbicide application, and high-density housing developments.

The city also has completed source water assessments on the groundwater wells to determine if there were any potentially contaminating activities present. There have been no contaminants detected in the water supply for the groundwater wells; however, all wells are still considered vulnerable to activities located near the water source. The source is considered most vulnerable to the following activities not associated with any detected contaminants: sewer collection systems and chemical/petroleum processing/storage.

American River Watershed Sanitary Survey

This is an ongoing project in partnership with the San Juan Water District, El Dorado Irrigation District, Placer County Water Agency, City of Sacramento, Carmichael Water District, and County of Sacramento and keeps us up to date on developments in the American River watershed. The most recent American River Watershed Sanitary Survey - 2008 update assessed the potential water quality contamination activities in the watershed and evaluated treatment processes and source water protection programs to remove these contaminants from our drinking water.

Keep the Waters Clean Campaign

The source water protection program protects water quality by encouraging boaters and other recreational users of the Sacramento River to use pump outs and public restrooms rather than the river to dispose of wastes. This program is in partnership with the City of Sacramento, County of Sacramento, and the East Bay Municipal Utility District.

Public Participation

The Environmental Utilities Department routinely reports at the City of Roseville Public Utility Commission meetings held on the fourth Tuesday of each month at 7 p.m. in the City of Roseville Council Chambers. The public is welcome to attend.

For additional information about the City of Roseville, please visit our Website www.roseville.ca.us/eu. If you would like to have more information on items related to water quality issues visit the EPA Website (www.epa.gov/safewater/hfacts.html) or the California Department of Health Website (www.dhs.ca.gov/ps/ddwem/default.htm).

What Is In The Water?

Last year, as in years past, your tap water met all EPA and State drinking water health standards. Roseville vigilantly safeguards its water supplies and once again we are proud to report that our system has never violated a maximum contaminant level or any other water quality standard. This brochure is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State Standards. We are committed to providing you with information because informed customers are our best allies.

Terms & Abbreviations Used In This Report

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

Maximum Contaminant Level Goal (MCLG): 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.

Public Health Goal (PHG): 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 (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

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

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

Things You Should Know About 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 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 (1-800-426-4791).

• 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. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

• 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 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 can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.
- In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.
- 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. The City of Roseville is 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 http://www.epa.gov/safewater/lead.

Footnotes

(1) Fluoride is added in order to help prevent dental cavities. The optimal fluoride level is 0.8 ppm.

(2) For Total Coliform Bacteria the highest percentage of positive samples collected in any month is reported as the average. The MCL is 5% of monthly samples are positive. Coliforms are bacteria that are naturally present in the environment and are used as indicators that other, potentially harmful, bacteria may be present.

(3) There are no PHGs, MCLGs, or mandatory standard health effects language for constituents with secondary drinking water standards because secondary MCLs are set on the basis of aesthetics.

Results of Monitoring for Primary Drinking Water Standards

Substance	MCL	PHG [MCLG]	Folsom Lake Avg	Folsom Lake Rng	Year of Sampling	Violation	Typical Source
Fluoride - natural (ppm)	2.0	1	0.19	0.08-0.51	2010	No	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Fluoride - added (ppm)1	2.0	1	0.79	0.05-1.28	2010	No	Water additive which promotes strong teeth
Turbidty (ntu)	TT=1.0 NTU TT = 95% of samples< 0.3 NTU	N/A	0.04	0.02-0.24 Highest single read =0.24	2010	No	Soil runoff
Total Coliform Bacteria (%)2	>5%	(0)	0	100	2010	No	Naturally present inthe environment
Barium (ppm)	1	2	0.11	0.11	2010	No	Erosion of natural deposits; discharge of oil drilling wastes and from metal refineries

Results of Monitoring for Secondary Drinking Water Standards 3

Substance	MCL	PHG [MCLG]	Folsom Lake Avg	Folsom Lake Rng	Year of Sampling	Violation	Typical Source
Color (ACU)	15	none	ND	ND	2010	No	Naturally occuring organic matter
Chloride (ppm)	500	none	3.8	3.8	2010	No	Runoff/leaching from natural deposits; seawater influence
Odor (TON)	3	none	2.0	2.0	2010	No	Naturally occuring organic materials
Specific Conductance (uS/cm)	1600	none	68	68	2010	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	500	none	6.2	6.2	2010	No	Runoff/leaching from natural deposits; industrial wastes
Total Disolved Solids (ppm)	1000	none	39	39	2010	No	Runoff/leaching from natural deposits. Substances that form ions when in water; seawater influence

Additional Monitoring Results

Substance	MCL	PHG [MCLG]	Folsom Lake Avg	Folsom Lake Rng	Year of Sampling	Violation	Typical Source
Alkalinity as CACO3 (ppm)	none	none	22.8	18 - 31	2010	No	Runoff/leaching from natural deposits
Bicarbonate Alkalinity (ppm)	none	none	32	32	2010	No	Runoff/leaching from natural deposits
Calcium (ppm)	none	none	7.0	7.0	2010	No	Runoff/leaching from natural deposits
Magnesium (ppm)	none	none	1.5	1.5	2010	No	Runoff/leaching from natural deposits.
pH (pH units)	none	none	7.5	7.5	2010	No	Runoff/leaching from natural deposits
Sodium (ppm)	none	none	4.1	4.1	2010	No	Runoff/leaching from natural deposits, generally found in ground
Total Hardness	none	none	24	24	2010	No	Runoff/leaching from natural deposits, generally found in ground and surface waters
Total Organic Carbon (ppm)	none	none	1.03	0.91-1.2	2010	No	Various natural and man-made sources

Results of Monitoring Lead and Copper from 54 Sample Sites

Substance	Action Levels	PHG	90th Percentile (level detected)	No. of sites ex-ceeding AL	Sample Date	Violation	Typical Source
Copper (ppm)	1.3	0.17	0.038	0	2008	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Lead (ppb)	15	2	0.99	0	2008	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Distribution System Monitoring Results for Disinfection Byproducts and Disinfectants

Substance	MCL or [MRDL] or {AL}	PHG [MCLG]	City Avg.	Range	Sample Date	Violation	Typical Source
Total Trihalomethanes (ppb)	80	none	23	16-48	2010	No	Byproduct of drinking water disinfection
Haloacetic Acids 5 (ppb)	60	none	23	15-36	2010	No	Byproduct of drinking water disinfection
Chlorine	[4.0]	[4]	0.76	Trace - 1.19	2010	No	Drinking water disinfectant added for treatment