

Be in the Know! 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. 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 (DPH), 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 2011, and includes details about where your water comes from, what it contains, and how it compares to the standards set by the regulatory agencies.

Water Sources
The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, 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 2011, only surface water was used in Roseville.

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 (MGD) water treatment plant. The treatment process consists of coagulation, sedimentation, filtration and disinfection. Fluoride is added for the dental health of residents and pH is adjusted to reduce corrosion.

2011 Water Quality Report



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Surface Water—PCWA

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

Roseville Groundwater Sources
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. Currently, the city maintains four aquifer storage and recovery (ASR) groundwater wells and one non-ASR well as emergency, backup supply to the city's primary surface water supply. 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 Californians along with half of all Americans (more than 95 percent for rural Americans) get their household water supplied from groundwater. In 2011, no groundwater was used for the city.

Water Source 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.

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 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.

Be in the know.

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

Be in the know.
2005 Hilltop Circle
Roseville, CA 95747

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H2OH!

Those of us who call Northern California home must be especially aware of the ways we use water. Drought is always a possibility and the water available must support a growing population, yet continue providing a healthy environment for native fish, plants and wildlife. To balance our water supply against ever-increasing demands we must all look at ways we can reduce unnecessary use.

Become Water Efficient and Get a Rebate

Get cash for being more efficient with your water usage by participating in the various rebates available to you.

- **Indoor Efficiency:** Are you considering purchasing a new water-efficient clothes washer or high efficiency toilet? You could receive a rebate for \$75 for the washer and up to \$150 for the toilet.
- **Outdoor Efficiency:** Replace your current manual irrigation timer with a new Smart Timer that waters with the weather and you could get a rebate up to \$200. Have it installed by a licensed landscape contractor and get another \$50. Wanting to remove your grass? Participate in the Cash for Grass program and get \$1 per square foot of grass removed up to \$1,000. Is your irrigation system in disrepair? Enroll in the Irrigation Efficiency Rebate program and receive up to \$150 for upgrading your system with new high-efficiency equipment. Have a pool? Cover it and get up to \$50 or \$200 if you install a mechanized cover.

For eligibility information and program terms and conditions, go to www.roseville.ca.us/rebates or call 774-5761.

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.

The city also has completed source water assessments on drinking water source Assessment Program in partnership with the City of Sacramento, County of Sacramento, and the East Bay Municipal Utility District.

Drinking Water Source Assessment Program

This 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.

Keep the Waters Clean Campaign

The American River Watershed is also considered vulnerable to the following activities associated with any detected contaminants: illegal activities and dumping, fertilizer, pesticide and herbicide application, and high-density housing developments.

For additional information about the City of Roseville, please visit our Website www.roseville.ca.us/en. If you would like to have more information on items related to water quality issues visit the EPA Website (www.water.epa.gov/drink/) or the California Department of Public Health Website (www.cdph.ca.gov/programs/pages/DWfasp.aspx).



WATER QUALITY ANALYSIS RESULTS FOR 2011

WATER SOURCES MONITORING							
Substance	MCL	PHG [MCLG]	Folsom Lake Average	Folsom Lake Range	Year of Sampling	Violation	Typical Source
Results of Monitoring for Primary Drinking Water Standards							
Turbidity (ntu)	TT = 1.0 NTU	N/A	0.04	0.02-0.09 Highest single read = 0.09	2011	No	Soil runoff
	TT = 95% of samples < 0.3 NTU			100			
Fluoride—natural (ppm)	2.0	1	0.1	0.1	2011	No	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Fluoride—added (ppm)	2.0	1	Distribution System Average: 0.71	Distribution System Range: 0.33-1.0	2011	No	Water additive which promotes strong teeth
Chloride (ppm)	500	none	1.6	1.6	2011		Runoff/leaching from natural deposits; seawater influence
Results of Monitoring for Secondary Drinking Water Standards							
Iron (ppm)	0.3	none	0.05	0.05	2011		Leaching from natural deposits; industrial wastes
Manganese (ppm)	0.05	none	0.03	0.026-0.035	2011	No	Leaching from natural deposits
Odor (units)	3	none	1.0	1.0	2011		Naturally-occurring organic materials
Specific Conductance (uS/cm)	1600	none	59	59	2011	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	500	none	2.8	2.8	2011	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	1000	none	46	46	2011	No	Runoff/leaching from natural deposits; substances that form ions when in water; seawater influence
Turbidity (ntu)	5.0	N/A	0.07	0.07	2011	No	Soil runoff
Additional Monitoring							
Alkalinity as CaCO3 (ppm)	none	none	23.4	16-35	2011	No	Runoff/leaching from natural deposits
Bicarbonate Alkalinity (ppm)	none	none	35	35	2011	No	Runoff/leaching from natural deposits
Calcium (ppm)	none	none	6.5	6.5	2011	No	Runoff/leaching from natural deposits
Magnesium (ppm)	none	none	2.6	2.6	2011	No	Runoff/leaching from natural deposits
pH (pH units)	none	none	8.5	8.2-8.7	2011	No	Runoff/leaching from natural deposits
Sodium (ppm)	none	none	2.6	2.6	2011	No	Runoff/leaching from natural deposits, generally found in ground
Total Hardness (ppm)	none	none	27	27	2011	No	Runoff/leaching from natural deposits, generally found in ground and surface waters
Total Organic Carbon (ppm)	none	none	1.1	0.7-1.3	2011	No	Various natural and man-made sources
DISTRIBUTION SYSTEM MONITORING							
Total Trihalomethanes (ppb)	80	N/A	50.2	35-71	2011	No	Byproduct of drinking water chlorination
Haloacetic Acids (ppb)	60	N/A	29.7	26-33	2011	No	Byproduct of drinking water chlorination
In home testing for: Lead ppb	15		1.7	90 th percentile	2011	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
In home testing for: Copper ppb	1300		63	90 th percentile	2011	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

What is in 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.

Terms & Abbreviations Used in This Report

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 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. Environmental Protection Agency.

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 Environmental Protection Agency.

MRDL—Maximum Residual Disinfectant Level: 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.

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.

NTU—Nephelometric Turbidity Units—a measurement of the clarity of water

ppb: parts per billion. A measurement of the concentration of a substance in the water. One penny in \$10,000,000 would be 1 ppb.

ppm: parts per million. A measurement of the concentration of a substance in the water. One penny in \$10,000 would be 1 ppm.

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

Secondary Drinking Water Standards: Limits for substances that may affect consumer acceptance of water, but are not otherwise harmful. Secondary MCLs are set to address the taste, odor, and appearance of drinking water.

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

µS/cm—microsiemen (µS) per centimeter. A measurement of water's ability to conduct electrical current.

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 storm water 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 storm water 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 storm water runoff, agricultural application, and septic systems.
 - Radioactive contaminants 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 0.7 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.

H₂O 411

Here is a simple fact that will have most people tweeting 'IDK'. Folsom Lake is not just for boating. It's also where Roseville gets its drinking water, and is used for regional flood protection and environmental mitigation. That's a lot of pressure on one little lake. So help us use this resource efficiently! Every drop saved contributes to a sustainable supply.




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