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 Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board 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.

Community Participation

You are invited to participate in our public forum and voice your concerns or questions about your drinking water. The Board of Directors meet the first Monday of each month beginning at 6:30 p.m. at the District office, 1880 Acacia Avenue. Your water Board of Directors are: David Williams, President; Annette Babb, First Vice President; Jim Barringer, Director; Joel Farias, Jr., Director; and Larry Crabtree, Director.

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Sutter Community Services District
P.O. Box 710
Sutter, CA 95982

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

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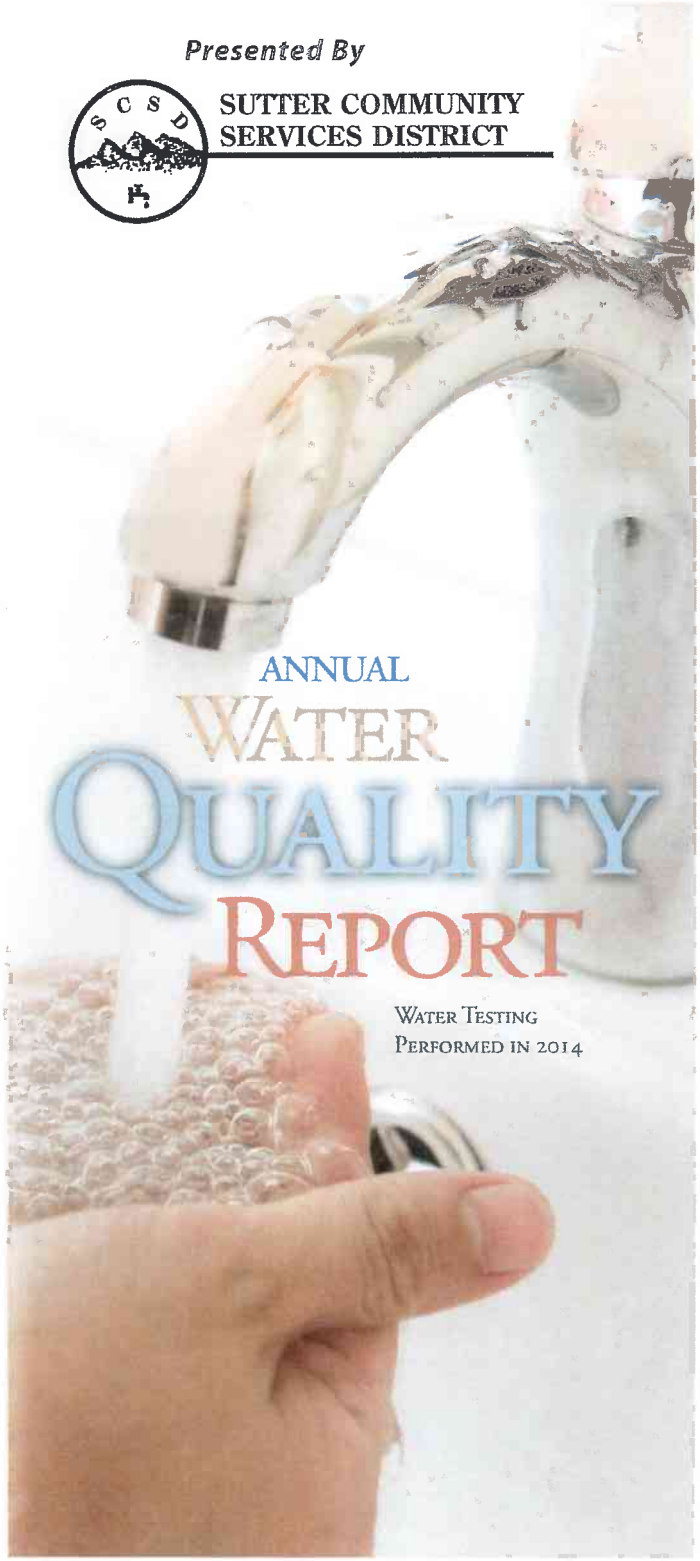
Presented By

SUTTER COMMUNITY SERVICES DISTRICT



ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2014

Our Mission Continues

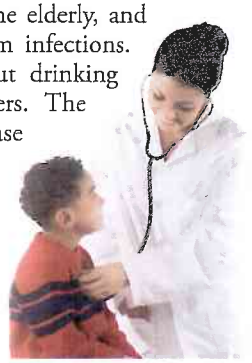
We are proud to present once again our annual water quality report covering all testing performed between January 1 and December 31, 2014. Most notably, last year marked the 40th anniversary of the Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. We celebrate this milestone as we continue to manage our water system with a mission to deliver the best quality drinking water. By striving to meet the requirements of SDWA, we are ensuring a future of healthy, clean drinking water for years to come.

Please let us know if you have any questions or concerns about the information in this report. After all, well-informed customers are our best allies. For information, please call Geri Goetzinger, General Manager; Steven Thompson, Chief Operator; or Ramon Adame-Torres, Operator, at (530) 755-1733.

Important Health Information

While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

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.



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.

Arsenic Regulation

Arsenic contamination of drinking water sources may result from either natural or human activities. Volcanic activity, erosion of rocks and minerals, and forest fires are natural sources that can release arsenic into the environment. Although about 90 percent of the arsenic used by industry is for wood preservative purposes, it is also used in paints, drugs, dyes, soaps, metals, and semiconductors. Agricultural applications, mining, and smelting also contribute to arsenic releases. Arsenic is usually found in the environment combined with other elements such as oxygen, chlorine, and sulfur (inorganic arsenic); or combined with carbon and hydrogen (organic arsenic). Organic forms are usually less harmful than inorganic forms.

Low levels of arsenic are naturally present in water - about 2 parts arsenic per billion parts of water (ppb). Thus, you normally take in small amounts of arsenic in the water you drink. Some areas of the country have unusually high natural levels of arsenic in rock, which can lead to unusually high levels of arsenic in water.

In January 2001, the U.S. EPA lowered the arsenic Maximum Contaminant Level (MCL) from 50 to 10 ppb in response to new and compelling research linking high arsenic levels in drinking water with certain forms of cancer. All water utilities were required to implement this new MCL in January 2006.

In December 2014 at Well 2-B, we conducted a required test for arsenic. The arsenic level for that testing was above the MCL of 10 ppb, testing at 12 ppb. Sutter CSD is now required to take a sample for four quarters and take an average, which must be below the MCL of 10 ppb.

Removing arsenic from drinking water is a costly procedure but well worth the expenditure considering the health benefits. For a more complete discussion visit the U.S. EPA's arsenic Web site at http://water.epa.gov/lawsregs/rulesregs/sdwa/arsenic/index.cfm.

Water Conservation

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

Where Does My Water Come From?

Our drinking water supply is provided entirely by groundwater. Groundwater is 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 District operates three groundwater wells and a 750,000-gallon storage tank. We serve more than 1,065 homes, schools, and businesses. Future plans are to add another water storage tank as funding becomes available.

Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatil table below shows only those contaminants that were detected in the water. The state requires us to monitor for certain substances less than c 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.

REGULATED SUBSTANCES

				Well 1		Well 3		Well 2-B		Distribution Syste	
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	AMOUNT DETECTED	RAN LOW-H
Arsenic[1] (ppb)	2014	10	0.004	7.1	NA	9.2	NA	12	10–12	NA	N
Barium (ppb)	2008	1,000	2,000	198	NA	141	NA	100[2]	NA[2]	NA	N
Chlorine (ppm)	2014	[4.0 (as Cl2)]	[4 (as Cl2)]	1	0.75–1.13	1	0.83–1.13	1	0.83–1.13	NA	N
Fecal coliform and *E. coli* [Total Coliform Rule] (# positive samples)	2014	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or *E. coli* positive	(0)	0	NA	0	NA	0	NA	0	N
Fluoride (ppm)	2008	2.0	1	0.24	NA	0.3	NA	0.23[2]	NA[2]	NA	N
Gross Alpha Particle Activity (pCi/L)	2007	15	(0)	4.92	NA	2.94	NA	1.44[3]	NA[3]	NA	N
Nitrate [as nitrate] (ppm)	2014	45	45	13	NA	2.5	NA	11	NA	NA	N
Nitrite [as nitrogen] (ppm)	2014	1	1	0.050	NA	0.050	NA	0.050	NA	NA	N
Total Coliform Bacteria [Total Coliform Rule] (# positive samples)	2014	No more than 1 positive monthly sample	(0)	0	NA	0	NA	0	NA	1	N
Turbidity[4] (NTU)	2008	TT	NA	ND	NA	NA	NA	0.036[2]	0.36–0.036[2]	NA	N

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 (ppb)	2014	1,300	300	418	0/10	No	Internal corrosion of household plumbing systems; erosion of natural
Lead (ppb)	2014	15	0.2	1.9	1/10	No	Internal corrosion of household water plumbing systems; discharges f

SECONDARY SUBSTANCES

				Well 1		Well 3		Well 2-B			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOU
Chloride (ppm)	2008	500	NS	8.22	NA	10.2	NA	12[2]	NA[2]	No	Runoff/leach
Color (Units)	2008	15	NS	3	NA	2	NA	3[2]	NA[2]	No	Naturally-oc
Specific Conductance (µS/cm)	2014	1,600	NS	350	NA	440[3]	NA[3]	370[3]	NA[3]	No	Substances t
Sulfate (ppm)	2008	500	NS	7.0	NA	24	NA	14[2]	NA[2]	No	Runoff/leach
Total Dissolved Solids (ppm)	2008	1,000	NS	280	280–340	340	NA	274[2]	NA[2]	No	Runoff/leach
Turbidity (Units)	2008	5	NS	NA	NA	0.25	0.25–0.25	NA	NA	No	Soil runoff

UNREGULATED AND OTHER SUBSTANCES

		Well 1		Well 3		Well 2-B		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Hardness (ppm)	2008	140	NA	180	NA	175[3]	NA[3]	Erosion and leaching of natural deposits
Sodium (ppm)	2006	26.2	NA	25.7[3]	NA[3]	22[3]	NA[3]	Erosion and leaching of natural deposits

[1] In December 2
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The arsenic lev
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: or synthetic organic contaminants. The
year because the concentrations of these

ATION	TYPICAL SOURCE
No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
No	Drinking water disinfectant added for treatment
No	Human and animal fecal waste
No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
No	Erosion of natural deposits
No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
No	Naturally present in the environment
No	Soil runoff
	; leaching from wood preservatives
	ıstrial manufacturers; erosion of natural deposits
	ı natural deposits; seawater influence
	›rganic materials
	ions when in water; seawater influence
	ı natural deposits; industrial wastes
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st for arsenic.
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must be below

[2] Sampled in 2014.
[3] Sampled in 2011.
[4] 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.
[5] Sampled in 2008.

Source Water Assessment

A Source Water Assessment Plan (SWAP) has been completed. This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility to contamination by the identified potential sources. The sources are considered most vulnerable to the following activities not associated with any detected contaminants:

Well 1 & Well 2-B: Septic systems, agricultural drainage, unauthorized dumping.

Well 3: Gas stations, septic systems, pesticides/fertilizer/petroleum transfer and storage.

A copy of the complete assessment may be viewed at:

State Water Resources Control Board		Sutter CSD
Valley District 364 Knollcrest Drive Suite 101 Redding, CA 96002	or	1880 Acacia Avenue Sutter, CA 95982
Reese Crenshaw, (530) 224-4861		Geri Goetzinger, (530) 755-1733

To The Last Drop

The National Oceanic and Atmospheric Administration (NOAA) defines drought as a deficiency in precipitation over an extended period of time, usually a season or more, resulting in a water shortage causing adverse impacts on vegetation, animals, and/or people. Drought strikes in virtually all climate zones, from very wet to very dry.

There are primarily three types of drought: Meteorological Drought refers to the lack of precipitation, or the degree of dryness and the duration of the dry period; Agricultural Drought refers to the agricultural impact of drought, focusing on precipitation shortages, soil water deficits, and reduced ground water or reservoir levels needed for irrigation; and Hydrological Drought, which pertains to drought that usually occurs following periods of extended precipitation shortfalls that can impact water supply (i.e., stream flow, reservoir and lake levels, ground water).

Drought is a temporary aberration from normal climatic conditions, thus it can vary significantly from one region to another. Although normally occurring, human factors, such as water demand, can exacerbate the duration and impact that drought has on a region. By following simple water conservation measures, you can help significantly reduce the lasting effects of extended drought.

To learn more about water conservation efforts, check out U.S. EPA's Water Conservation Tips for Residents at www.epa.gov/region1/eco/drinkwater/water_conservation_residents.html.

Definitions

AL (Regulatory Action Level): The concentration of a contaminant which, 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).

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