



REPORT TO COUNCIL

City of Sacramento

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915 I Street, Sacramento, CA 95814-2604
www.CityofSacramento.org

Public Hearing
August 28, 2007

**Honorable Mayor and
Members of the City Council**

Title: Required Report on City's Water Quality Relative to Public Health Goals

Location/Council District: Citywide

Recommendation: Conduct a public hearing on the 2007 Report on City's Water Quality Relative to Public Health Goals.

Contact: Mike Yee, Plant Services Division Manager, (916) 808-5670; Roland Pang, Superintendent of Water and Sewer, (916) 808-3119.

Presenters: Roland Pang, Superintendent of Water and Sewer, (916) 808-3119.

Department: Utilities

Division: Plant Services

Organization No: 3327

Description/Analysis

Issue: The California Health and Safety Code specifies that a report be prepared to provide information to the public in addition to the annually distributed Consumer Confidence Report. The required report compares the City of Sacramento's drinking water quality to public health goals.

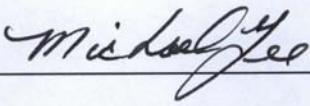
Policy Considerations: The drinking water quality provided by the City of Sacramento's Department of Utilities meets or surpasses all state and federal minimum drinking water standards set to protect public health. This public hearing on the "Report on City's Water Quality Relative to Public Health Goals" provides compliance with Section 116470 (c) of the California Health and Safety Code, which requires a public hearing for the purpose of accepting and responding to public comment on the report. Any comments received today may be addressed at this meeting or will be responded to in an addendum to the 2007 Public Health Goal Report, which will be made available to the public.

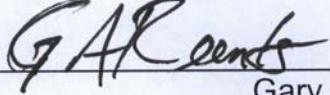
Environmental Considerations This public hearing is required under State law and constitutes a non-discretionary action to which the California Environmental Quality Act does not apply, under Section 21080 of the California Public Resources Code.

Rationale for Recommendation: The California Health and Safety Code, Section 116470 requires the public water system to hold a public hearing for the purpose of accepting and responding to public comment on the public health goal report.

Financial Considerations: No action is proposed, and there are no financial implications from this report.

Emerging Small Business Development (ESBD): Not applicable.

Respectfully Submitted by: 
Mike Yee
Plant Services Division Manager

Approved by: 
Gary A. Reents
Director of Utilities

Recommendation Approved:

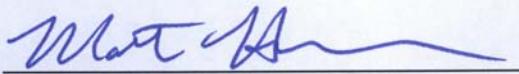

Ray Kerridge
City Manager

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Background

The California Health and Safety Code mandates that a report be prepared by July 1, 1998, and every three years thereafter to compare drinking water quality with public health goals (PHGs) set by the California Office of Environmental Health Hazard Assessment (OEHHA) and with maximum contaminant level goals (MCLGs) adopted by the US Environmental Protection Agency (EPA).

- PHGs are developed by OEHHA solely based on evaluating public health risk, and do not consider the practical risk management factors that are evaluated by the California Department of Health Services (now named California Department of Public Health) or EPA in setting state and federal drinking water standards, respectively. These factors that are not considered include the ability of laboratories to analyze the constituent at low levels, available treatment technology, costs, and benefits. MCLGs are the federal equivalent to PHGs. PHGs and MCLGs are not enforceable standards, and no action to meet them is required.
- The City's water system complies with all of the health-based drinking water standards, known as maximum contaminant levels (MCLs), required by the California Department of Health Services and EPA.
- The California Health and Safety Code also requires that a public hearing be held, for the purpose of accepting and responding to public comments or questions on the "Report on City's Water Quality Relative to Public Health Goals".

**CITY OF SACRAMENTO – DEPARTMENT OF UTILITIES
2007 REPORT ON CITY'S WATER QUALITY RELATIVE TO PUBLIC HEALTH GOALS**

BACKGROUND

Provisions of the California Health and Safety Code (Reference No. 1) specify that larger (>10,000 service connections) water utilities prepare a special report by July 1, 2007 if their water quality measurements have exceeded any Public Health Goals (PHGs). PHGs are non-enforceable goals established by the Cal-EPA's Office of Environmental Health Hazard Assessment (OEHHA). The law also requires that where OEHHA has not adopted a PHG for a constituent, the water suppliers are to use the Maximum Contaminant Level Goals (MCLGs) adopted by the United States Environmental Protection Agency (USEPA). Only constituents that have a California primary drinking water standard, such as a maximum contaminant level (MCL), and for which either a PHG or MCLG has been set are to be addressed. (Reference No. 2 is a list of all regulated constituents with the MCLs and PHGs or MCLGs.)

There are a few constituents that are routinely detected in water systems at levels usually well below the drinking water standards for which no PHG nor MCLG have yet been adopted by OEHHA or USEPA, including Total Trihalomethanes. These will be addressed in a future required report after a PHG has been adopted.

The law specifies what information is to be provided in the report. (See Reference No. 1)

If a constituent was detected in the City of Sacramento's water supply during 2004 and through 2006 at a level exceeding an applicable PHG or MCLG, this report provides the information required by the law. Included is the numerical public health risk associated with the MCL and the PHG or MCLG, the category or type of risk to health that could be associated with each constituent, the best treatment technology available that could be used to reduce the constituent level, and an estimate of the cost to install that treatment if it is appropriate and feasible.

WHAT ARE PHGS?

PHGs are drinking water constituent levels set by the California OEHHA, which is part of Cal-EPA, and are based solely on public health risk considerations. None of the practical risk-management factors that are considered by the USEPA or the California Department of Health Services (CDHS) in setting drinking water standards (such as MCLs) are considered in setting the PHGs. These factors include analytical detection capability, treatment technology available, and benefits and costs. The PHGs are not enforceable and are not required to be met by any public water system. MCLGs are the federal equivalent to PHGs.

WATER QUALITY DATA CONSIDERED

All of the water quality data collected by our water system during 2004 and through 2006 for purposes of determining compliance with drinking water standards was considered. This data was all summarized in our 2004, 2005, and 2006 Consumer Confidence Reports that were mailed to all of our customers in May and June 2005, 2006 and 2007, respectively. (Reference No. 3)

GUIDELINES FOLLOWED

The Association of California Water Agencies (ACWA) formed a workgroup that prepared guidelines for water utilities to use in preparing this required report. The ACWA guidelines were used in the preparation of our report. No guidance was available from state regulatory agencies.

BEST AVAILABLE TREATMENT TECHNOLOGY AND COST ESTIMATES

Both the USEPA and CDHS adopt what are known as Best Available Technologies (BATs), which are the best known methods of reducing contaminant levels to the MCL. Costs can be estimated for such

technologies. However, since many PHGs and all MCLGs are set much lower than the MCL, it is not always possible or feasible to determine what treatment is needed to further reduce a constituent downward to or near the PHG or MCLG, many of which are set at zero. Estimating the costs to reduce a constituent to zero is difficult, if not impossible, because it is not possible to verify by analytical means that the level has been lowered to zero. In some cases, installing treatment to try and further reduce very low levels of one constituent may have adverse effects on other aspects of water quality.

CONSTITUENTS DETECTED THAT EXCEED A PHG OR A MCLG

The following is a discussion of constituents that were detected in one or more of our drinking water sources at levels above the PHG, or if no PHG, above the MCLG:

Arsenic:

The current California MCL for arsenic is 50 µg/L and the current federal MCL for arsenic is 10 µg/L. The PHG is 0.004 µg/L. The category of health risk associated with arsenic, and the reason that a drinking water standard was adopted for it, is that people who drink water containing arsenic above the MCL throughout their lifetime could experience an increased risk for getting cancer. CDHS and USEPA say that "drinking water which meets this MCL is associated with little to none of this risk and should be considered safe with respect to arsenic." The numerical health risk associated with the current California MCL is one in one hundred, the current federal MCL is one in ten thousand, and the numerical health risk associated with the PHG is one in one million. Twenty-eight of the City of Sacramento's 33 permitted wells had detectable levels of arsenic, all well below the California and federal MCLs. The table below provides a summary of the average arsenic levels during 2004 and through 2006 in the detectable wells.

Well Number	Arsenic, ug/L
83	5.9
91	3.2
92	2.6
93	3.0
94	2.6
107	3.5
116	2.2
120	2.0
122	2.3
123	3.5
124	2.4
126	2.5
127	2.0
129	2.2
131	2.4
133	3.5
134	2.7
137	2.4
138	2.8
139	2.6
143	2.3
144	2.1
153	3.4
154	3.6
155	2.0
156	3.5
158	2.5
159	2.3

Five BATs have been identified to meet the arsenic MCL, activated alumina, coagulation/filtration, ion exchange, lime softening, and reverse osmosis. The best arsenic reduction for these technologies is around 95 percent. Based on this reduction and the current levels of arsenic in the wells, it is unlikely that any of these technologies could actually reduce the level of arsenic to the PHG of 0.004 µg/L, but it is thought that ion exchange may be the most appropriate technology for the City to implement to meet this very low level.

The estimated cost to install and operate ion exchange systems on the 28 wells identified above, to attempt to reduce the arsenic level to the PHG of 0.004 µg/L, would be approximately \$13,035,000 for the initial construction plus an estimated order of magnitude cost of \$3,500,000 for land acquisition. It is uncertain if partial lot acquisition will be possible and if not it could result in the acquisition of real property with structures or development of new wells at a much higher cost, from 100 to 200 percent higher. The operation and maintenance costs have been estimated at \$1,572,000 per year. These approximate costs would result in an assumed increased user fee of approximately 32.8 percent during the first year and an assumed increased user fee of approximately 2.9 percent for the following years.

Coliform Bacteria:

In 2004 and through 2006 there were two months which had detectable total coliform in the distribution system that exceeded the MCLG of zero. These are shown in the table below.

Year	Month	Number of Samples Collected	Number of Samples Positive for Total Coliform	Percent Positive
2004	May	248	4	2
2005	May	236	2	1

The MCL for coliform is five percent positive samples of all samples per month and the MCLG is zero. The reason for the coliform drinking water standard is to minimize the possibility of the water containing pathogens, which are organisms that cause waterborne disease. Because coliform is only a surrogate indicator of the potential presence of pathogens, it is not possible to state a specific numerical health risk. While USEPA normally sets MCLGs "at a level where no known or anticipated adverse effects on persons would occur", they indicate that they cannot do so with coliforms.

Coliform bacteria are an indicator organism that are ubiquitous in nature and are not generally considered harmful. They are used because of the ease in monitoring and analysis. If a positive sample is found, it indicates a potential problem that needs to be investigated and follow up sampling done. It is not at all unusual for a system to have an occasional positive sample. It is difficult, if not impossible, to assure that a system will never get a positive sample.

We add chlorine at our production sources to assure that the water served has the least microbiological risk. The chlorine residual levels are carefully controlled to provide the best health protection without causing the water to have undesirable taste and odor or increasing the disinfection byproduct level. This careful balance of treatment processes is essential to continue supplying our customers with safe drinking water. Other equally important measures that we have implemented include: an effective cross-connection control program, maintenance of a disinfectant residual throughout our system, an effective monitoring and surveillance program, and maintaining positive pressures in our distribution system. Our system has already taken all of the steps described by CDHS as "best available technology" for coliform bacteria in Section 64447, Title 22, CCR.

RECOMMENDATIONS FOR FURTHER ACTION

The drinking water quality of the City of Sacramento – Department of Utilities meets all State of California, Department of Health Services, and USEPA drinking water standards set to protect public health. To further reduce the levels of the constituents identified in this report that are already significantly below the health-based Maximum Contaminant Levels established to provide “safe drinking water”, additional costly treatment processes would be required. The effectiveness of the treatment processes to provide any significant reductions in constituent levels at these already low values is uncertain. The health protection benefits of these further hypothetical reductions are not at all clear and may not be quantifiable. Therefore, no action is proposed.

REFERENCES:

- No.1 Excerpt from California Health & Safety Code: Section 116470 (b)
- No.2 Table of Regulated Constituents with MCLs, PHGs or MCLGs
- No.3 City of Sacramento – Department of Utilities 2004, 2005 and 2006 Consumer Confidence Reports

Reference No. 1

Excerpt from California Health and Safety Code Section 116470 "Consumer Confidence Report"

Section 116470

- (b) On or before July 1, 1998, and every three years thereafter, public water systems serving more than 10,000 service connections that detect one or more contaminants in drinking water that exceed the applicable public health goal, shall prepare a brief written report in plain language that does all of the following:
- (1) Identifies each contaminant detected in drinking water that exceeds the applicable public health goal.
 - (2) Discloses the numerical public health risk, determined by the office, associated with the maximum contaminant level for each contaminant identified in paragraph (1) and the numerical public health risk determined by the office associated with the public health goal for that contaminant.
 - (3) Identifies the category of risk to public health, including, but not limited to, carcinogenic, mutagenic, teratogenic, and acute toxicity, associated with exposure to the contaminant in drinking water, and includes a brief plainly worded description of these terms.
 - (4) Describes the best available technology, if any is then available on a commercial basis, to remove the contaminant or reduce the concentration of the contaminant. The public water system may, solely at its own discretion, briefly describe actions that have been taken on its own, or by other entities, to prevent the introduction of the contaminant into drinking water supplies.
 - (5) Estimates the aggregate cost and the cost per customer of utilizing the technology described in paragraph (4), if any, to reduce the concentration of that contaminant in drinking water to a level at or below the public health goal.
 - (6) Briefly describes what action, if any, the local water purveyor intends to take to reduce the concentration of the contaminant in public drinking water supplies and the basis for that decision.

- (c) Public water systems required to prepare a report pursuant to subdivision (b) shall hold a public hearing for the purpose of accepting and responding to public comment on the report. Public water systems may hold the public hearing as part of any regularly scheduled meeting.
- (d) The department shall not require a public water system to take any action to reduce or eliminate any exceedance of a public health goal.

REFERENCE NO. 2
CALIFORNIA MCLs AND PHGs AND FEDERAL MCLGs
2007

PARAMETERS/ CONSTITUENTS	Units	STATE MCL	DLR	PHG or (MCLG)
INORGANICS				
ALUMINUM	mg/L	1	0.05	0.6
ANTIMONY	mg/L	0.006	0.006	0.020
ARSENIC	mg/L	0.05 ^a	0.002	0.000004**
ASBESTOS	fibers/L	7 million	0.2 million	(7 million)
BARIUM	mg/L	1	0.1	2
BERYLLIUM	mg/L	0.004	0.001	0.0001
CADMIUM	mg/L	0.005	0.001	0.00004**
CHROMIUM	mg/L	0.05	0.01	withdrawn***
CHROMIUM 6	mg/L			
COPPER (<i>at-the-tap; 90th percentile</i>)	mg/L	AL=1.3	0.05	0.17
CYANIDE	mg/L	0.15	0.1	0.15
FLUORIDE	mg/L	1.4-2.4	0.1	1
LEAD (<i>at-the-tap; 90th percentile</i>)	mg/L	AL=0.015	0.005	0.002
MERCURY	mg/L	0.002	0.001	0.0012
NICKEL	mg/L	0.1	0.01	0.012
NITRATE [as N]	mg/L	10	0.4	10
NITRATE [as N03]	mg/L	45	2	45
NITRITE [as N]	mg/L	1	0.4	1
SELENIUM	mg/L	0.05	0.005	(0.05)
THALLIUM	mg/L	0.002	0.001	0.0001
ORGANICS				
ACRYLAMIDE	TT	TT		(0)
ALACHLOR	mg/L	0.002	0.001	0.004
ATRAZINE	mg/L	0.001	0.001	0.00015
BENTAZON	mg/L	0.018	0.002	0.2
BENZENE	mg/L	0.001	0.0005	0.00015
BENZO (a) PYRENE	mg/L	0.0002	0.0001	0.000004
BROMATE	mg/L	0.01	0.0050	(0)
CARBOFURAN	mg/L	0.018	0.005	0.0017
CARBON TETRACHLORIDE	mg/L	0.0005	0.0005	0.0001
CHLORDANE	mg/L	0.0001	0.0001	0.00003
CHLORITE	mg/L	1	0.02	(0.8)
CHLOROETHENE [VINYL CHLORIDE]	mg/L	0.0005	0.0005	0.00005
CIS-1,2-DICHLOROETHYLENE	mg/L	0.006	0.0005	0.1**
2,4-D	mg/L	0.07	0.01	0.07
DALAPON	mg/L	0.2	0.01	0.79
DIBROMOCHLOROPROPANE [DBCP]	mg/L	0.0002	0.00001	0.0000017
1,2-DICHLOROBENZENE [ORTHO]	mg/L	0.6	0.0005	0.6
1,4-DICHLOROBENZENE [PARA]	mg/L	0.005	0.0005	0.006
1,1-DICHLOROETHANE [1,1-DCA]	mg/L	0.005	0.0005	0.003
1,2-DICHLOROETHANE [1,2-DCA]	mg/L	0.0005	0.0005	0.0004
1,1-DICHLOROETHENE [1,1-DCE]	mg/L	0.006	0.0005	0.01
DICHLOROMETHANE	mg/L	0.005	0.0005	0.004
1,2-DICHLOROPROPANE	mg/L	0.005	0.0005	0.0005
1,3-DICHLOROPROPENE	mg/L	0.0005	0.0005	0.0002
DI (2-ETHYLHEXYL) ADIPATE	mg/L	0.4	0.005	0.2
DI (2-ETHYLHEXYL) PHTHALATE	mg/L	0.004	0.003	0.012
DINOSEB	mg/L	0.007	0.002	0.014
DIOXIN [2,3,7,8 - TCDD]	mg/L	3x10 ⁻⁸	5x10 ⁻⁹	(0)
DIQUAT	mg/L	0.02	0.004	0.015
ENDOTHALL	mg/L	0.1	0.045	0.58
ENDRIN	mg/L	0.002	0.0001	0.0018
EPICHLOROHYDRIN	TT			(0)
ETHYLBENZENE	mg/L	0.3	0.0005	0.3
ETHYLENE DIBROMIDE [EDB]	mg/L	0.00005	0.00002	0.00001
GLYPHOSATE	mg/L	0.7	0.025	1.0
HEPTACHLOR	mg/L	0.00001	0.00001	0.000008

REFERENCE NO. 2
CALIFORNIA MCLs AND PHGs AND FEDERAL MCLGs
2007

PARAMETERS/ CONSTITUENTS	Units	STATE MCL	DLR	PHG or (MCLG)
HEPTACHLOR EPOXIDE	mg/L	0.00001	0.00001	0.000006
HEXACHLOROBENZENE	mg/L	0.001	0.0005	0.00003
HEXACHLOROCYCLOPENTADIENE	mg/L	0.05	0.001	0.05
LINDANE	mg/L	0.0002	0.0002	0.000032
METHOXYCHLOR	mg/L	0.03	0.01	0.03
METHYL TERTIARY BUTYL ETHER (MTBE) ^a	mg/l	0.013	0.003	0.013
MOLINATE	mg/L	0.02	0.002	none
MONOCHLOROBENZENE	mg/L	0.07	0.0005	0.2
OXAMYL	mg/L	0.05	0.02	0.05
PENTACHLOROPHENOL	mg/L	0.001	0.0002	0.0004
PICLORAM	mg/L	0.5	0.001	0.5
POLYCHLORINATED BIPHENYLS [PCBs]	mg/L	0.0005	0.0005	(0)
SILVEX [2,4,5-TP]	mg/L	0.05	0.001	0.025
SIMAZINE	mg/L	0.004	0.001	0.004
STYRENE	mg/L	0.1	0.0005	(0.1)
1,1,2,2-TETRACHLOROETHANE	mg/L	0.001	0.0005	0.0001
TETRACHLOROETHYLENE [PCE]	mg/L	0.005	0.0005	0.00006
THIOBENCARB	mg/L	0.07	0.001	0.07
TOLUENE	mg/L	0.15	0.0005	0.15
TOXAPHENE	mg/L	0.003	0.001	0.00003
TRANS-1,2-DICHLOROETHYLENE	mg/L	0.01	0.0005	0.06**
1,2,4-TRICHLOROBENZENE	mg/L	0.005	0.0005	0.005
1,1,1-TRICHLOROETHANE [1,1,1-TCA]	mg/L	0.2	0.0005	1.0**
1,1,2-TRICHLOROETHANE [1,1,2-TCA]	mg/L	0.005	0.0005	0.0003**
TRICHLOROETHYLENE [TCE]	mg/L	0.005	0.0005	0.0008
TRICHLOROFLUOROMETHANE (FREON 11)	mg/L	0.15	0.005	0.70
TRICHLOROTRIFLUOROETHANE (FREON 113)	mg/L	1.2	0.01	4.0
TRIHALOMETHANES, TOTAL [THMs]	mg/L	0.1	0.0005	none
XYLENES [SUM OF ISOMERS]	mg/L	1.750	0.0005	1.8

MICROBIOLOGICAL

COLIFORM % POSITIVE SAMPLES	%	5		(zero)
CRYPTOSPORIDIUM*		TT		(zero)
GIARDIA LAMBLIA		TT		(zero)
LEGIONELLA		TT		(zero)
VIRUSES		TT		(zero)

RADIOLOGICAL

ALPHA ACTIVITY, GROSS	pCi/L	15	3	(zero)
BETA ACTIVITY, GROSS	pCi/L	4 mrem/yr	4	(zero)
RADIUM 226	pCi/L	5	1	0.05**
RADIUM 228	pCi/L	5	1	0.019**
STRONTIUM 90	pCi/L	8	2	0.35**
TRITIUM	pCi/L	20000	1000	400**
URANIUM	pCi/L	20	2	0.43

MCL = Maximum Contaminant Level

MCLG = Maximum Contaminant Level Goal

*Surface Water Systems Only

**PHG revised, MCL to be reviewed and may also be revised.

PHG = Public Health Goal

DLR = Detection Limit for Reporting purposes; set by DHS

TT = Treatment Technique

***Total Chromium PHG withdrawn-awaiting revised PHG for Chromium 6

a - USEPA adopted an arsenic level of 10 ppb that became effective in California on Jan. 23, 2006.

**Reference No. 3 –
City of Sacramento – Department of Utilities
2004, 2005 and 2006 Consumer Confidence Reports**

2004 WATER QUALITY REPORT

*A consumer confidence report
for the citizens of Sacramento*

HELPFUL PHONE NUMBERS AND INFORMATION

INFORMATION YOU SHOULD KNOW ABOUT WATER

This Consumer Confidence Report (CCR) is a summary of results of tests conducted to detect contaminants in your drinking water. It has been provided to educate you, our customer, about the quality of your drinking water. Many tests were conducted and only those constituents detected are listed in this report.

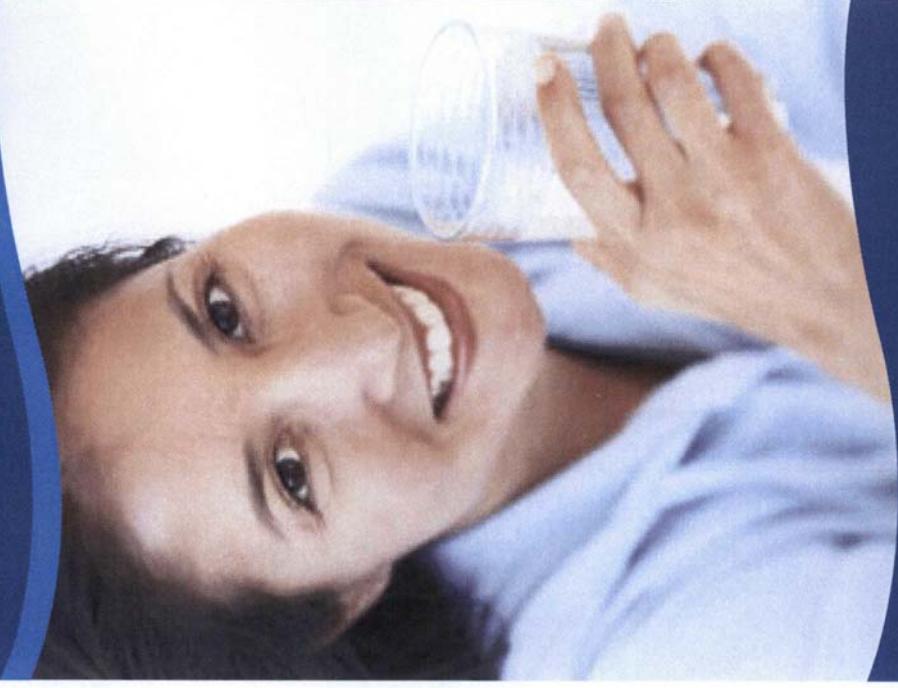
The CCR includes a comparison of the detected chemicals in the City of Sacramento Department of Utilities' drinking water to the standards set by the California Department of Health Services (DHS) and the United States Environmental Protection Agency (USEPA).

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 at (800) 426-4791.

Your water meets or exceeds all federal and state drinking water standards.

SPECIAL INFORMATION AVAILABLE

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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA and the Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available by calling the Safe Drinking Water Hotline at (800) 426-4791.



Congratulations! Your water meets or exceeds all federal and state drinking water standards.



CITY OF SACRAMENTO
DEPARTMENT OF UTILITIES

	916-264-5371
我們講中文 · Hablamos Español	
Mы говорим по-русски · မორးဘ်ဂျာမြန်မာစာပေါ်	Peb hais ius Hmoob · Chúng tôi nói tiếng Việt





Congratulations! Your water meets or exceeds all federal and state drinking water standards.

TRADITION OF EXCELLENCE

Since its founding in 1849, the City of Sacramento has considered water quality of utmost importance. This Consumer Confidence Report is presented to enhance your understanding of where your water comes from and what it contains and to confirm that your drinking water continues to meet or exceed all state and federal drinking water standards.

The City of Sacramento Department of Utilities is committed to providing high quality, reliable, and environmentally sensitive water, sewer, and drainage services to the residents of Sacramento. In doing so, we work to conserve and preserve our water sources.

CALIFORNIA SOURCE WATER QUALITY

The sources of drinking water, both tap 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and

Radioactive contaminants which 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 United States Environmental Protection Agency (USEPA) and the California Department of Health Services (DHS) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DHS regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

SACRAMENTO'S WATER SOURCE ASSESSMENT

The City of Sacramento has two independent water sources. Our primary water source is river water from the American and Sacramento Rivers, which provide 85 percent of our water supply. Groundwater provides the remaining 15 percent. Assessments of potential contaminating activities for the City's Sacramento River and American River water sources were completed in December 2000 and April 2001, respectively. These reports indicated that both rivers are most vulnerable to contaminants from recreational activities and that the Sacramento River is also most susceptible to agricultural contaminants.

An assessment of the City's groundwater wells was completed in December 2002. Two wells are considered most vulnerable to the following activities associated with a contaminant detected in the water they produce: dry cleaners and other activities associated with cleaning solvents. In addition, due to the proximity to potential contaminant sources, the wells north of the American River are considered most vulnerable to sewer collection systems, leaking underground storage tanks, known contaminant plumes, agricultural drainage, gas stations, dry cleaners, metal plating and chemical processing storage facilities, electrical/electronic manufacturing, and automobile body shops. Wells south of the American River are considered vulnerable to leaking underground storage tanks and sewer collection systems. Copies of the complete assessments are available for review in the City Clerk's office at City Hall or call 264-5371 to request a summary of the assessments.

TEAMWORK – TOGETHER WE CAN PROTECT OUR WATER RESOURCES

The City of Sacramento Department of Utilities works hard to bring you quality drinking water. Please be careful as you live, work and play to limit what goes into the storm drains and rivers, so we can continue to preserve the quality of the water and our diverse river ecosystem.

Fill It Up. Use your dishwasher and washing machine only for full loads.

Go Green. Purchase household and garden products that are "least toxic" to the environment.

Look for Leaks. Inspect and maintain your car regularly to prevent leaks of oil, antifreeze and other fluids. Also, conserve water by fixing leaks around your home and yard.

Apply when Dry. Do not apply lawn or garden products when rain is forecasted and do not over-water your lawn.

Pick-up After Yourself and Your Pets. Pick up your trash and put recycling in an appropriate bin. Shovel up animal wastes, seal it in bags and throw it away in a garbage can. Also, when visiting our rivers, be sure to use a public restroom or if your boat has a restroom, be sure to use a pumpout station to dispose of sewage safely.

Slow the Flow. Use a low-flow hose nozzle when landscaping and only water on your assigned day. Also use a low-flow showerhead and take showers instead of baths.

Spend Time in the Gutter. Keep the gutters clear of debris and lawn clipping to prevent clogging of storm drains. If you are putting out yard clippings for pick-up, sweep them into the street.

Join the Team. Volunteer to stencil storm drains in your neighborhood with "No Dumping Flows to River" message by calling 808-4H2O.

WATER QUALITY ANALYSIS RESULTS FOR 2004

The following table shows the detected contaminants in your drinking water and compares them with contaminant level limits set by U.S. Environmental Protection Agency (USEPA) and the California Department of Health Services (DHS). To request a complete report, including non-detected items, please call (916) 808-3737.

Your water meets or exceeds all current federal and state requirements.

DETECTED PRIMARY DRINKING WATER CONSTITUENTS regulated to protect your health								
Constituent	Units	PHG or (MCLG) or [MRDLG]	MCL or [MRDL]	Surface Water Range	Average	Ground Water Range	Average	Year of Sampling
Arsenic	PPB	4	50	ND	ND	ND-4.7	2.4 (a)	2001-2004
Barium	PPM	2	1	ND	ND	ND-0.14	ND	2001-2004
Chromium (total)	PPB	(100)	50	ND	ND	ND-12	6.9 (a)	2001-2004
Fluoride (b)	PPM	1	2	0.11-1.51	0.89	0.11-1.51	0.89	2004
Gross Alpha particle activity	pCi/L	N/A	15	ND-3.3	ND	ND	ND	2000, 2003-2004
Nitrate (as nitrate)	PPM	45	45	0.38-0.68	0.53	0.49-15	6.7	2001-2004
Tritium	pCi/L	N/A	20000	1211-1233	1222	NR	NR	1999-2000
Chlorine (distribution system)	PPM	[4]	[4.0]	0.38-0.57	0.49	0.38-0.57	0.49	2004
Total Trichloromethanes (distribution system) (c)	PPB	N/A	80	1.5-98	57	ND-12	5	2004
Halogenated Acids (distribution system) (c)	PPB	N/A	60	1.0-69	31	ND-12	2.5	2004
Control of Disinfection By-Product Precursors (TOC) (raw) (d)	PPM	N/A treatment requirement if average TOC>2		1.0-4.3	1.6	NR	NR	2004
DETECTED SECONDARY DRINKING WATER CONSTITUENTS regulated for aesthetic qualities								
Constituent	Units	PHG or (MCLG)	Action Level	Surface Water Range	90th Percentile	Ground Water Range	Number of Sites Exceeding AL	Year of Sampling
Total Coliform Bacteria	% samples positive	(0)	more than 5.0% of monthly samples are positive		1.60%	1.60%	1.60%	2004
Turbidity (e)	NTU	N/A	TT = 1 NTU		0.53	NR	2004	Soil runoff
		N/A	TT = 95% of samples ≤ 0.3 NTU		99.96%	NR		
DETECTED UNREGULATED DRINKING WATER CONSTITUENTS (g)								
Constituent	Units	PHG or (MCLG)	MCL	Surface Water Range	Average	Ground Water Range	Average	Year of Sampling
Chloride	PPM	NONE	500	3.0-8.4	5.1	14-56	38	2004
Color	UNITS	NONE	15	1-1	1	1-2	1	2001-2004
Specific Conductance	UMHOS/CM	NONE	1600	70-216	125	233-520	380	2001-2004
Sulfate	PPM	NONE	500	5.4-23	11	2.8-17	8	2001-2004
Total Dissolved Solids (TDS)	PPM	NONE	1000	51-140	84	187-358	280	2001-2004
Turbidity	NTU	NONE	5	ND-0.10	0.06	0.05-0.55	0.17	2001-2004
Zinc	PPM	NONE	5	ND	ND	ND-16	0.62	2001-2004

- (a) This number represents the most conservative average value. The average may actually be lower.
- (b) The City's fluoridation program provides the addition of fluoride to all of the City's drinking water. The City adjusts the natural levels of fluoride in our water supplies to the California DHS recommended optimum level.
- (c) The results are in compliance with the MCL, which is based on the maximum annual running average. The range shown reflects individual samples.
- (d) Only surface water sources must monitor for Disinfection By-Product precursors in raw water.
- (e) Only surface water sources must comply with PDWS for turbidity.
- (f) The level for Copper is measured at the 90th percentile sampling of 74 homes at the tap during 2002.
- (g) Unregulated contaminant monitoring helps determine where certain contaminants occur and whether they need to be regulated.
- (h) Data collected to provide occurrence information for future revised Radiologicals Rule.
- (i) There is no specific MCL for Radium 228. There is a combined MCL of 5 pCi/L for Radium 226 and Radium 228.

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

IMPORTANT DEFINITIONS

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHG (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 United States EPA.

Maximum Residual Disinfectant Level (MRDL): The level of disinfectant added for water treatment that may not be exceeded at the consumer's tap.

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

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 EPA.

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

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

WATER QUALITY TABLE ABBREVIATIONS

N/A: Not applicable

ND: Not detectable at reporting limit

NR: Not required

NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

PPB: Parts per billion or micrograms per liter

PPM: Parts per million or milligrams per liter

pCi/L: Picocuries per liter is a measure of radioactivity

UMHOS/CM: Micromhos per centimeter

WHAT YOU SHOULD KNOW ABOUT...

Radon

Radon is a radioactive gas that you cannot see, taste or smell. Radon is found throughout the United States and can move up through the ground and into a home through cracks and holes in the foundation. Tap water may also release radon into the air in your home when showering, washing dishes or performing other household activities. Radon entering the home through tap water will, in most cases, be a small source of radon. Breathing air containing radon may lead to lung cancer and drinking water containing radon may cause increased risk of stomach cancer.

If you are concerned about radon in your home, testing is easy and inexpensive. There are simple, low cost ways to fix a radon problem, if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. Average radon levels in the City's groundwater supply between 1999 and 2000 ranged from 306 to 730 picocuries per liter, which is equal to less than 1 picocurie per liter in the air. For additional information, call the State Radon Program at (800) 745-7236 or the USEPA's Radon Hotline at (800) SOS-RADON.

Cryptosporidium

Cryptosporidium is a disease-causing microorganism found in surface waters throughout the United States that can be transmitted through ingestion of contaminated food, drinking water, recreational waters, or fecal material. Our monitoring indicates the infrequent presence of this microorganism in our untreated river water. Current test methods do not allow us to determine if the microorganisms are dead or if they are capable of causing disease. Although filtration methods cannot guarantee 100 percent removal, the City's treatment process is expected to remove over 99 percent of these microorganisms.

Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection with symptoms that include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illnesses. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection.

2005 CITY OF SACRAMENTO WATER QUALITY REPORT

*A consumer confidence report
for the citizens of Sacramento*

HELPFUL PHONE NUMBERS AND INFORMATION

**INFORMATION YOU SHOULD
KNOW ABOUT WATER**
This Consumer Confidence Report (CCR) is a summary of results of tests conducted to detect contaminants in your drinking water. It has been provided to educate you, our customer, about the quality of your drinking water. Many tests were conducted and only those constituents detected are listed in this report.

The CCR includes a comparison of the detected chemicals in the City of Sacramento Department of Utilities' drinking water to the standards set by the State Department of Health Services (Department) and the United States Environmental Protection Agency (USEPA).

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 at (800) 426-4791.

Your water meets or exceeds all federal and state drinking water standards.

SPECIAL INFORMATION AVAILABLE

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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA and the Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available by calling the USEPA's Safe Drinking Water Hotline at (800) 426-4791.

The City of Sacramento Department of Utilities is dedicated to providing safe, reliable and environmentally sensitive water, drainage, sewer and flood control to our customers.

City of Sacramento Department of Utilities

Laboratory	808-3737
Customer Service	808-5371
City Operator (24 hours a day, 7 days a week) ...	264-5011
Billing Inquiries	808-5454

www.cityofsacramento.org

USEPA Safe Drinking Water Hotline . . . (800) 426-4791
www.epa.gov/OGWDW

The City Council holds public meetings most Tuesdays at 2 p.m. and 7 p.m. in the City Council Chambers at 911 I Street, Sacramento. You can access Council agendas at www.cityofsacramento.org/clerk.

本報告有關於您的飲用水的重要資料。請找人為您翻譯，或與能明白該報告的人交談。

Phúc trình này có các chi tiết quan trọng về nước uống của quý vị. Hãy nhờ người dịch cho quý vị, hoặc hỏi người nào hiểu rõ các chi tiết này.

Este informe contiene información importante sobre el agua que usted bebe. Pida a alguien que se lo traduzca o hable con alguien que lo entienda.

ຄະນາງການນີ້ແມ່ນບັນດາທີ່ຈະມີຄວາມຕົ້ນຫຼັງການ. ກົດຕື່ອນດີເປັນໄດ້ການນີ້ກ່ອງທ່ານ, ທີ່ມີໄດ້ກຳສອດກັບພົນໃຈໃນກົດຕື່ອນດີກ່ອງທ່ານ.

この報告書には私達の飲料水に関する重要な情報が記載されています。貴方のために翻訳してくれる人、あるいは内容を理解し説明してくれる人を見つけてください。

Tsab ntawv (report) no muaj cov kev qhia tseemceeb txog koi cov de haus. Thov ib tus tibneeg pub txhais rau koj lossis nrog tej tus tibneeg uas totaub txog tsab ntawv na tham.

Ang report na ito ay nagtalaman ng mahalagang impormasyon tungkol sa tubig na inyong iniiuin. Magpatulong sa taong mairaring magsalin, o makipag-usap sa taong nakakaunawa nito.

Данный рапорт содержит важную информацию о вашей питьевой воде. Переведите его или проконсультируйтесь с тем, кто его понимает.



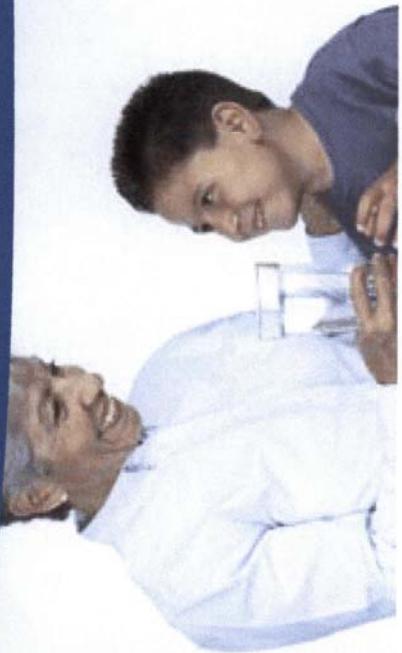
CALL 916-808-5371

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Ma говорим по-русски · ພັນຍາ ປູ້ອັນດຸນ ໂດຍໄດ້
Peb hais lus Hmoob · Chúng tôi nói tiếng Việt



CITY OF SACRAMENTO
DEPARTMENT
OF UTILITIES



TRADITION OF EXCELLENCE

Since its founding in 1849, the City of Sacramento has considered water quality of utmost importance. This Consumer Confidence Report is presented to enhance your understanding of where your water comes from and what it contains and to confirm that your drinking water continues to meet or exceed all state and federal drinking water standards.

The City of Sacramento Department of Utilities is committed to providing high quality, reliable, and environmentally sensitive water, sewer, and drainage services to the residents of Sacramento. In doing so, we work to conserve and preserve our water sources.

Your water meets or exceeds all federal and state drinking water standards.

CALIFORNIA SOURCE WATER QUALITY

The sources of drinking water (both tap 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, which 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.

Radioactive contaminants which 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, U.S.

Environmental Protection Agency (USEPA) and the State Department of Health Services (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.

SACRAMENTO'S WATER SOURCE ASSESSMENT

The City of Sacramento has two independent water sources. Our primary water source is river water from the American and Sacramento Rivers, which provide 85 percent of our water supply. Groundwater provides the remaining 15 percent. Assessments of potential contaminating activities for the City's Sacramento River and American River water sources were completed in December 2000 and April 2001, respectively. These reports indicated that both rivers are most vulnerable to contaminants from recreational activities and that the Sacramento River is also susceptible to agricultural contaminants.

An assessment of the City's groundwater wells was completed in December 2002. One well is considered most vulnerable to activities associated with a contaminant detected in the water it produces, including automotive services. In addition, due to the proximity to potential contaminant sources, the wells north of the American River are considered most vulnerable to sewer collection systems, leaking underground storage tanks, known contaminant plumes, agricultural drainage, gas stations, dry cleaners, metal plating and chemical processing storage facilities, electrical/electronic manufacturing, and automobile body shops. Wells south of the American River are considered

vulnerable to leaking underground storage tanks and sewer collection systems. Copies of the complete assessments are available for review in the City Clerk's office at City Hall or call 808-5371 to request a summary of the assessments.

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WATER QUALITY ANALYSIS RESULTS FOR 2005

The following table shows the detected contaminants in your drinking water and compares them with contaminant level limits set by United States Environmental Protection Agency (USEPA) and the State Department of Health Services (Department). To request a complete report, including non-detected items, please call (916) 808-3737.

Your water meets or exceeds all current federal and state requirements.

DETECTED PRIMARY DRINKING WATER CONSTITUENTS regulated to protect your health							
Constituent	Units	PHG or (MCLG) or [MRDLG]	MCL or [MRDL]	Surface Water Range	Average	Ground Water Range	Average
Arsenic	PPB	0.001	50	ND	ND	2.0-15	2.8
Barium	PPM	2	1	ND	ND	ND-0.14	ND
Chromium (total)	PPB	(100)	50	ND	ND	ND-21	ND
Fluoride (a)	PPM	1	2	0.62-1.1	0.83	0.39-1.4	0.96
Gross Alpha particle activity	pCi/L	(0)	15	ND-3.3	ND	ND	ND
Nitrate (as nitrate)	PPM	45	45	ND	ND	ND-13	6.3
Tritium	pCi/L	N/A	20000	1211-1235	1222	NR	NR
Chlorine (distribution system)	PPM	[4]	[4.0]	0.02-1.34	0.56	0.02-1.34	0.56
Total Trihalomethanes (distribution system)	PPB	N/A	80	15-61	56	ND-11	5.5
Haloacetic Acids (distribution system)	PPB	N/A	60	31-49	41	ND-14	4.4
Control of Disinfection By-Product precursors (TOC) (raw) (b)	PPM	N/A treatment requirement if average TOC>2	1.1-5.1	1.6	NR	NR	2005
DETECTED SECONDARY DRINKING WATER CONSTITUENTS regulated for aesthetic qualities							
Constituent	Units	PHG or (MCLG)	MCL	Surface Water Range	Average	Ground Water Range	Average
Total Coliform Bacteria	% samples positive	(0)	more than 5.0% of monthly samples are positive		0.85%	0.85%	2005
Turbidity (c)	NTU	N/A	TT = 1 NTU		0.26	NR	2005
	N/A	TT = 95% of samples ≤ 3 NTU		99.96%	NR		
DETECTED UNREGULATED DRINKING WATER CONSTITUENTS (d)							
Constituent	Units	PHG or (MCLG)	MCL	Surface Water Range	Average	Ground Water Range	Average
Chromium VI (Hexavalent chromium)	PPB	NONE	500	3.1-9.8	5.0	13-62	33
Color	UNITS	NONE	15	1-1	1	1-1	1
Specific Conductance	UMHOS/CM	NONE	1600	72-232	128	235-520	378
Sulfate	PPM	NONE	500	4.9-28	12	3.0-18	8.4
Total Dissolved Solids (TDS)	PPM	NONE	1000	19-160	81	189-358	270
Turbidity	NTU	NONE	5	0.05-0.26	0.10	0.05-0.64	0.17
Zinc	PPM	NONE	5	ND	ND	ND-16	0.64

(a) The City's fluoridation program provides the addition of fluoride to all the City's drinking water. The City adjusts the natural levels of fluoride in our water supplies to the State Department of Health Services recommended optimal level.

(b) Only surface water sources must monitor for Disinfection By-product precursors in raw water.

(c) Only surface water sources must comply with Public Drinking Water Standard for turbidity.

(d) Unregulated contaminant monitoring helps determine where certain contaminants occur and whether they need to be regulated.

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

IMPORTANT DEFINITIONS

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHG (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

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WATER QUALITY TABLE ABBREVIATIONS

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PCi/L: Picocuries per liter is a measure of radioactivity

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WHAT YOU SHOULD KNOW ABOUT...

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If you are concerned about radon in your home, testing is easy and inexpensive. There are simple, low cost ways to fix a radon problem, if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. Average radon levels in the City's groundwater supply between 1999 and 2000 ranged from 506 to 730 picocuries per liter, which is equal to less than 1 picocurie per liter in the air. For additional information, call the State Radon Program at (800) 745-7236 or the USEPA's Radon Hotline at (800) SOS-RADON.

Cryptosporidium

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Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection with symptoms that include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illnesses. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection.

2006 CITY OF SACRAMENTO WATER QUALITY REPORT

*A consumer confidence report
for the citizens of Sacramento*

HELPFUL PHONE NUMBERS AND INFORMATION

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Congratulations! Your water meets or exceeds all federal and state drinking water standards.



916-808-5454

我們講中文 · Hablamos Español
Мы говорим по-русски · မြန်မာဘ်ပါမေးဆုံးတဲ့
Peb has lus Hmoob · Chúng tôi nói tiếng Việt



CITY OF SACRAMENTO
DEPARTMENT
OF UTILITIES

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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural applications, 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, U.S. Environmental Protection Agency (USEPA) and the State Department of Health Services (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.

SACRAMENTO'S WATER SOURCE ASSESSMENT

The City of Sacramento has two independent water sources. Our primary water source is river water from the American and Sacramento Rivers, which provide 85 percent of our water supply. Groundwater provides the remaining 15 percent. Assessments of potential contaminating activities for the City's Sacramento River and American River water sources were completed in December 2000 and April 2001, respectively. These reports indicated that both rivers are most vulnerable to contaminants from recreational activities and that the Sacramento River is also most susceptible to agricultural contaminants.

An assessment of the City's groundwater wells was completed in December 2002. One well is considered most vulnerable to activities associated with a contaminant detected in the water it produces, including automotive services. In addition, due to the proximity to potential contaminant sources, the wells north of the American River are considered most vulnerable to sewer collection systems, leaking underground storage tanks, known contaminant plumes, agricultural drainage, gas stations, dry cleaners, metal plating and chemical processing storage facilities, electrical/electronic manufacturing, and automobile body shops.

Wells south of the American River are considered vulnerable to



TRADITION OF EXCELLENCE

Since its founding in 1849, the City of Sacramento has considered water quality of utmost importance. This Consumer Confidence Report is presented to enhance your understanding of where your water comes from and what it contains and to confirm that your drinking water continues to meet or exceed all state and federal drinking water standards.

The City of Sacramento Department of Utilities is committed to providing high quality, reliable, and environmentally sensitive water, sewer, and drainage services to the residents of Sacramento. In doing so, we work to conserve and preserve our water sources.

CALIFORNIA SOURCE WATER QUALITY

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.

leaking underground storage tanks and sewer collection systems. Copies of the complete assessments are available for review at the Department of Utilities, 1395 35th Avenue, Sacramento, CA or call 808-545-4 to request a summary of the assessments.

TEAMWORK — TOGETHER WE CAN PROTECT OUR WATER RESOURCES

The City of Sacramento Department of Utilities works hard to bring you quality drinking water. Please be careful as you live, work and play to limit what goes into the storm drains and rivers, so we can continue to preserve the quality of the water and our diverse river ecosystem.

Here are some ways that you can help preserve and conserve our water resources.

Fill It Up. Use your dishwasher and washing machine only for full loads.

Go Green. Purchase household and garden products that are "least toxic" to the environment.

Look for Leaks. Inspect and maintain your car regularly to prevent leaks of oil, antifreeze and other fluids. Also, conserve water by fixing leaks around your home and yard.

Apply when Dry. Do not apply lawn or garden products when rain is forecasted and do not over-water your lawn.

Pick-up After Yourself and Your Pets. Pick up your trash and put recycling in an appropriate bin. Shovel up animal wastes, seal it in bags and throw it away in a garbage can. Also, when visiting our rivers, be sure to use a public restroom or if your boat has a restroom, be sure to use a pumpout station to dispose of sewage safely.

Slow the Flow. Use a low-flow hose nozzle when landscaping and only water on your assigned day. Also use a low-flow showerhead and take showers instead of baths.

Spend Time in the Gutter. Keep the gutters clear of debris and lawn clipping to prevent clogging of storm drains. If you are putting out yard clippings for pick-up, sweep them into the street.

Join the Team. Volunteer to stencil storm drains in your neighborhood with "No Dumping Flows to River" message by calling 808-4H2O.

WATER QUALITY ANALYSIS RESULTS FOR 2006

The following table shows the detected contaminants in your drinking water and compares them with drinking water standards set by United States Environmental Protection Agency (USEPA) and the State Department of Health Services (Department). To request a complete report, including non-detected items, please call (916) 808-3737.

Your water meets or exceeds all current federal and state requirements

DETECTED PRIMARY DRINKING WATER CONSTITUENTS regulated to protect your health									
Constituent	Units	PHG or (MCLG) or [MRDLG] or [MRDL]	MCL or [MRDL]	Surface Water Range	Average	Ground Water Range	Average	Year of Sampling	Major Sources
Arsenic	PPB	0.004	10	ND-ND	ND	ND-5.9	2.4	2006	Erosion or leaching of natural deposits
Barium	PPM	2	1	ND-ND	ND	ND-0.21	0.15	2005-2006	Erosion or leaching of natural deposits
Chromium (total)	PPB	(100)	50	ND-ND	ND	ND-21	ND	2005-2006	Erosion or leaching of natural deposits
Fluoride (a)	PPM	1	2	ND-1.89	0.83	0.14-1.46	0.96	2005-2006	Water additive that promotes strong teeth
Nitrate (as nitrate)	PPM	45	45	ND	ND	ND-14	6.3	2006	Runoff and leaching from fertilizer use, leaching from septic tanks and sewage, erosion of natural deposits
Tritium	pCi/L	400	20000	1211-1233	1222	NR	NR	1999-2000	Decay of natural and man-made products
Chlorine (distribution system)	PPM	[4]	[4.0]	0.01-1.13	0.56	0.01-1.13	0.56	2006	Drinking water disinfectant added for treatment
Total Trihalomethanes (distribution system)	PPB	N/A	80	22-81	50	ND-58	4.5	2006	By-product of drinking water chlorination
Halogenated Acids (distribution system)	PPB	N/A	60	20-49	31	ND-58	3.0	2006	By-product of drinking water chlorination
Control of Disinfection By-Product precursors (TOC) (raw) (b)	PPM	N/A	treatment requirement if average TOC>2	0.87-3.7	1.5	NR	NR	2006	Various natural and manmade sources
DETECTED SECONDARY DRINKING WATER CONSTITUENTS regulated for aesthetic qualities									
Constituent	Units	PHG or (MCLG)	MCL	Surface Water Range	Average	Ground Water Range	Average	Year of Sampling	Major Sources
Total Coliform Bacteria	% samples positive	(0)	more than 5.0% of monthly samples are positive			Surface Water Level Found	Ground Water Level Found	Year of Sampling	Major Sources
Turbidity (c)	NTU	N/A		TT = 1 NTU	0.14	NR	2006	Soil runoff	
				TT = 95% of samples ≤ 0.3 NTU	100%	NR			
DETECTED UNREGULATED DRINKING WATER CONSTITUENTS (d)									
Constituent	Units	PHG or (MCLG)	MCL	Surface Water Range	Average	Ground Water Range	Average	Year of Sampling	Major Sources
Chromium VI (Hexavalent chromium)	PPB	NONE	No Standard	ND	ND	1.0-12.6	5.6	2002	Erosion or leaching of natural deposits
Radium 228	pCi/L	0.019	No Standard	ND	ND	ND-2.94	ND	2003-2006	Erosion of natural deposits
Hardness	PPM	NONE	No Standard	21-61	44	74-512	137	2005-2006	Hardness is the sum of polyvalent cations present in the water, generally naturally occurring magnesium and calcium.
Sodium	PPM	NONE	No Standard	1.8-7.1	4.5	16-43	26	2005-2006	Naturally occurring salt in the water
Calcium	PPM	NONE	No Standard	8-19	14	15-65	29	2005-2006	Erosion or leaching of natural deposits
Magnesium	PPM	NONE	No Standard	1.4-5.4	3.4	8.2-11	16	2005-2006	Erosion or leaching of natural deposits

- (a) The City's fluoridation program provides the addition of fluoride to all the City's drinking water. The City adjusts the natural levels of fluoride in our water supplies to the Department recommended optimal level.
- (b) Only surface water sources must monitor for DBP Precursors in raw water.
- (c) Only surface water sources must comply with PDWS for turbidity.
- (d) Unregulated contaminant monitoring helps determine where certain contaminants occur and whether they need to be regulated.

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

IMPORTANT DEFINITIONS

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHG (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.

Maximum Residual Disinfectant Level (MRDL): The level of disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. 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.

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.

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

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

WATER QUALITY TABLE ABBREVIATIONS

NA: Not applicable

ND: Not detectable at reporting limit

NR: Not required

NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

PPB: Parts per billion or micrograms per liter

PPM: Parts per million or milligrams per liter

pCi/L: Picocuries per liter is a measure of radioactivity

µS/cm: Microsiemens per centimeter

WHAT YOU SHOULD KNOW ABOUT...

Radon

Radon is a radioactive gas that you cannot see, taste or smell. Radon is found throughout the United States and can move up through the ground and into a home through cracks and holes in the foundation. Tap water may also release radon into the air in your home when showering, washing dishes or performing other household activities. Radon entering the home through tap water will, in most cases, be a small source of radon. Breathing air containing radon may lead to lung cancer and drinking water containing radon may cause increased risk of stomach cancer.

If you are concerned about radon in your home, testing is easy and inexpensive. There are simple, low cost ways to fix a radon problem, if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. Average radon levels in the City's groundwater supply between 1999 and 2000 ranged from 506 to 730 picocuries per liter, which is equal to less than 1 picocurie per liter in the air. For additional information, call the State Radon Program at (800) 745-7236 or the USEPA's Radon Hotline at (800) SOS-RADON.

Cryptosporidium

Cryptosporidium is a disease-causing micro-organism found in surface waters throughout the United States that can be transmitted through ingestion of contaminated food, drinking water, recreational waters, or fecal material. Our monitoring indicates the infrequent presence of this micro-organism in our untreated river water. Current test methods do not allow us to determine if the microorganisms are dead or if they are capable of causing disease. Although filtration methods cannot guarantee 100 percent removal, the City's treatment process is expected to remove over 99 percent of these microorganisms.

Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection with symptoms that include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illnesses. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection.

Arsenic

While your drinking water meets the current EPA standard for arsenic, it does contain low levels of arsenic. The standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The California Department of Health Services 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.