

# CITY OF SACRAMENTO DEPARTMENT OF UTILITIES

## 2015 WATER QUALITY REPORT

*A Consumer Confidence Report for the Citizens of Sacramento*

### **DROUGHT ALERT**

As California faces an unprecedented drought, water is more precious than ever. The City of Sacramento has limited watering days for residents and businesses. Find your watering days, tips to save water and available water conservation services and rebates at [www.SpareSacWater.org](http://www.SpareSacWater.org)

## **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 the utmost importance. This Consumer Confidence Report is presented to enhance your understanding of where your water comes from, 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 dedicated to providing our customers with dependable, high quality water, storm drainage

and wastewater services in a fiscally and environmentally sustainable manner. In doing so, we work to conserve and preserve our water sources.

### **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.

# WATER QUALITY ANALYSIS RESULTS FOR 2015

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

The following tables show the measured amount of constituents detected in 2015 or in the most recent year sampling was required. Although the City of Sacramento tests for more than 100 substances, this report only lists those detected at or above the federal or state level for reporting.

## Important Definitions

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

**Constituent:** A chemical or parameter measured in the water supply.

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

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

**Maximum Residual Disinfectant Level (MRDL):** 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.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of 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.

**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.

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

### Abbreviations

µS/cm	microsiemens per centimeter
DBP	Disinfection By-products
NA	Not Applicable
ND	Not Detected
NTU	Nephelometric Turbidity Units; measures cloudiness of water
oocysts/L	oocysts per liter; count of organisms
pCi/L	picocuries per liter; measures radiation
ppb	parts per billion; one ppb is like 3 seconds in 100 years
ppm	parts per million; one ppm is like 32 seconds in one year
ppt	parts per trillion; one ppt is like 3 seconds in 100,000 years
TOC	Total Organic Carbon

## 1 Regulated for Public Health - Primary MCL

Constituent	Units	Year Sampled <sup>a</sup>	State or Federal Goal PHG	Highest Amount Allowed MCL	Water Treatment Plants		Wells		Typical Sources
					Range	Average	Range	Average	
Aluminum <sup>b</sup>	ppm	2011 - 2015	0.6	1	ND - 0.06	ND	ND	ND	Erosion of natural deposits; water treatment chemicals added to water
Arsenic	ppb	2011 - 2015	0.004	10	ND	ND	2.2 - 3.9	3.0	Erosion of natural deposits
Barium	ppm	2011 - 2015	2	1	ND	ND	ND - 0.2	ND	Erosion of natural deposits
Control Of DBP Precursors / TOC	ppm	2015	NA	Avg. < 2.0 (TT)	1.1 - 1.6	1.3	NA	NA	Various natural and man-made sources
Cryptosporidium in source water	oocysts/L	2015	0 (MCLG)	2-log removal required (TT)	ND - 0.2	ND	NA	NA	Naturally present in the environment
Fluoride in source water <sup>c</sup>	ppm	2014 - 2015	1	2.0	ND	ND	ND - 0.2	0.1	Erosion of natural deposits
Gross Alpha <sup>d</sup>	pCi/L	2012 - 2014	0 (MCLG)	15	ND	ND	ND - 7.8	ND	Erosion of natural deposits
Hexavalent Chromium	ppb	2014 - 2015	0.02	10	ND	ND	ND - 9.7 <sup>e</sup>	5.4	Erosion of natural deposits; industrial wastes
Nitrate (as Nitrogen)	ppm	2011 - 2015	10	10	ND	ND	ND - 4.5	1.7	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Turbidity	NTU	2015	NA	1 (TT)	0.11 <sup>f</sup>		NA	NA	Soil runoff
				Minimum 95% of samples <0.3	100% <sup>g</sup>		NA	NA	

Constituent	Units	Year Sampled <sup>a</sup>	State or Federal Goal PHG	Highest Amount Allowed MCL	Distribution System		Typical Sources
					Range	Average	
Chlorine	ppm	2015	4 (MRDLG)	4.0 (MRDL)	ND <sup>h</sup> - 1.4	0.6	Drinking water disinfectant added for treatment
E. Coli (Total Coliform Rule)	detections	2015	0 (MCLG)	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or E. coli positive	1 detection out of 2,903 routine samples <sup>i</sup>		Human and animal fecal waste
Fluoride <sup>c</sup>	ppm	2015	1	2.0	ND - 1.1	0.7	Water additive that promotes strong teeth
Haloacetic Acids	ppb	2015	NA	60	10 - 56	46	By-product of drinking water disinfection
Total Coliform Bacteria	% samples positive	2015	0 (MCLG)	5.0%	1.9% <sup>j</sup>		Naturally present in the environment
Trihalomethanes	ppb	2015	NA	80	15 - 73 <sup>k</sup>	74 <sup>l</sup>	By-product of drinking water disinfection

Constituent	Units	Year Sampled <sup>a</sup>	State or Federal Goal PHG	Action Level	# Of Samples Collected	90th Percentile Level	# Of Sites Exceeding AI	Typical Sources
Lead	ppb	2014	0.2	15	53	ND	0	Internal corrosion of household water plumbing systems; discharge from industrial manufacturing; erosion of natural deposits
Copper	ppm	2014	0.3	1.3	53	ND	0	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives

**NOTES:** (a) 2011 results were used for one well which was not fully monitored in 2015 since it was taken out of service due to electrical issues. (b) Aluminum is also regulated by a Secondary MCL of 0.2 ppm. (c) In accordance with State law, the City of Sacramento adjusts the natural levels of fluoride in our water supplies to the optimal level determined by the Centers for Disease Control. More information about fluoridation is available at [http://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/Fluoridation.shtml](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml)

(d) Gross alpha is used as a general indicator for the presence of radiological constituents. The gross alpha result for one well was slightly over half the MCL. As required, the well was then tested for uranium and the result was 4 pCi/L, which is less than the uranium MCL of 20 pCi/L. (e) The well which had the range maximum value of 9.7 ppb was removed from service. (f) Value given is the highest individual value measured during year. (g) Value given is the lowest monthly % compliance achieved. (h) Distribution samples with no detectable chlorine residual undergo further analysis to

ensure compliance with microbiological water quality regulations. (i) E. Coli was detected in one routine sample. There was no MCL violation, as the detection was not confirmed by 3 repeat samples taken in accordance with the Total Coliform Rule. (j) Value given is the maximum % positive of any month during 2015. (k) Range is based on all individual sample values from 2015. (l) Average is the highest Locational Running Annual Average, which is higher than the range due to the inclusion of 2014 data in calculations.

## 2 Regulated for Drinking Water Aesthetics - Secondary MCL

Constituent	Units	Year Sampled <sup>a</sup>	State or Federal Goal PHG	Highest Amount Allowed MCL	Water Treatment Plants		Wells		Typical Sources
					Range	Average	Range	Average	
Chloride	ppm	2011 - 2015	NA	500	5 - 7	6	7 - 66	37	Erosion or leaching of natural deposits
Specific Conductance	µS/cm	2011 - 2015	NA	1600	96 - 148	122	305 - 691	425	Substances that form ions when in water
Sulfate	ppm	2011 - 2015	NA	1000	65 - 99	11	5 - 31	11	Erosion or leaching of natural deposits
Total Dissolved Solids	ppm	2011 - 2015	NA	500	9-13	82	239 - 430	304	Erosion or leaching of natural deposits

Constituent	Units	Year Sampled	State or Federal Goal PHG	Highest Amount Allowed MCL	Distribution System		Typical Sources
					Range	Average	
Color	color units	2015	NA	15	1 - 4	1	Naturally occurring organic materials
Turbidity	NTU	2015	NA	5	0.06 - 0.91	0.13	Soil runoff

**3 Constituents With No Established MCL**  
*Unregulated constituent monitoring helps determine where certain water constituents occur and whether they should be regulated*

Constituent	Units	Year Sampled	Surface Water		Groundwater		Distribution System	
			Range	Average	Range	Average	Range	Average
Androstene	ppb	2014	ND - 0.00034	ND	ND	ND	NA	NA
Chlorate	ppb	2014	ND	ND	ND	ND	ND - 61	ND
1,4-dioxane	ppb	2014	ND	ND	ND - 0.2	ND	NA	NA
Molybdenum	ppb	2014 - 2015	ND	ND	ND	ND	ND - 1	ND
Strontium	ppb	2014 - 2015	48 - 130	76	180 - 430	273	48 - 370	192
Testosterone	ppb	2014	ND - 0.00026	ND	ND	ND	NA	NA
Vanadium	ppb	2014 - 2015	0.4 - 3	1.4	15 - 41	25	0.4 - 38	14



**4 Other Parameters of Interest to Customers**

Constituent	Units	Year Sampled <sup>a</sup>	Surface Water		Ground Water	
			Range	Average	Range	Average
Alkalinity	ppm	2011 - 2015	27 - 52	40	90 - 210	139
Bicarbonate Alkalinity	ppm	2011 - 2015	27 - 50	39	90 - 210	139
Calcium	ppm	2011 - 2015	15 - 23	19	15 - 43	26
Hardness	ppm	2011 - 2015	40 - 62	51	86 - 260	153
Magnesium	ppm	2011 - 2015	2 - 5	4	9 - 37	19
Sodium	ppm	2011 - 2015	3 - 7	5	18 - 36	27

**WATER QUALITY REGULATIONS**

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California State Water Resources Control Board (State Board) 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.

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 it can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

**Microbial contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

**Inorganic contaminants**, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

**Pesticides and herbicides**, that may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.

**Organic chemical contaminants**, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural applications and septic systems.

**Radioactive contaminants**, that can be naturally-occurring or be the result of oil and gas production and mining activities.

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 1-800-426-4791.



**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 provides 84 percent of our water supply. Groundwater provides the remaining 16 percent. Assessments of potential contaminating activities for the City's Sacramento River and American River water sources were most recently completed in 2016 and 2013 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. The City of Sacramento, along with several other water utilities, updates assessments of the river water sources every five years.

An assessment of the City's groundwater wells was completed in December 2002. Due to the proximity to potential contaminant sources, the wells north of the American River are considered most vulnerable to sewage 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 repair and body shops. Wells south of the American River are considered vulnerable to leaking underground storage tanks and sewage collection systems.

Copies of the complete assessments are available for review at the City of Sacramento, Department of Utilities, 1395 35th Avenue, or call 916-808-5454 to request a summary of the assessments.

**WHAT YOU SHOULD KNOW ABOUT LEAD**

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. City of Sacramento Department of Utilities 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 cooking or drinking. 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>.

**POPULATIONS WITH LOW RESISTANCE**

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 USEPA's Safe Drinking Water Hotline (1-800-426-4791).

**CRYPTOSPORIDIUM**

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly-used filtration methods cannot guarantee 100-percent removal. Our monitoring indicates the presence of these organisms in our source water in one out of 18 samples. The City's treatment process ensures that the 2-log removal treatment technique MCL required by regulation is met. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks; however, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

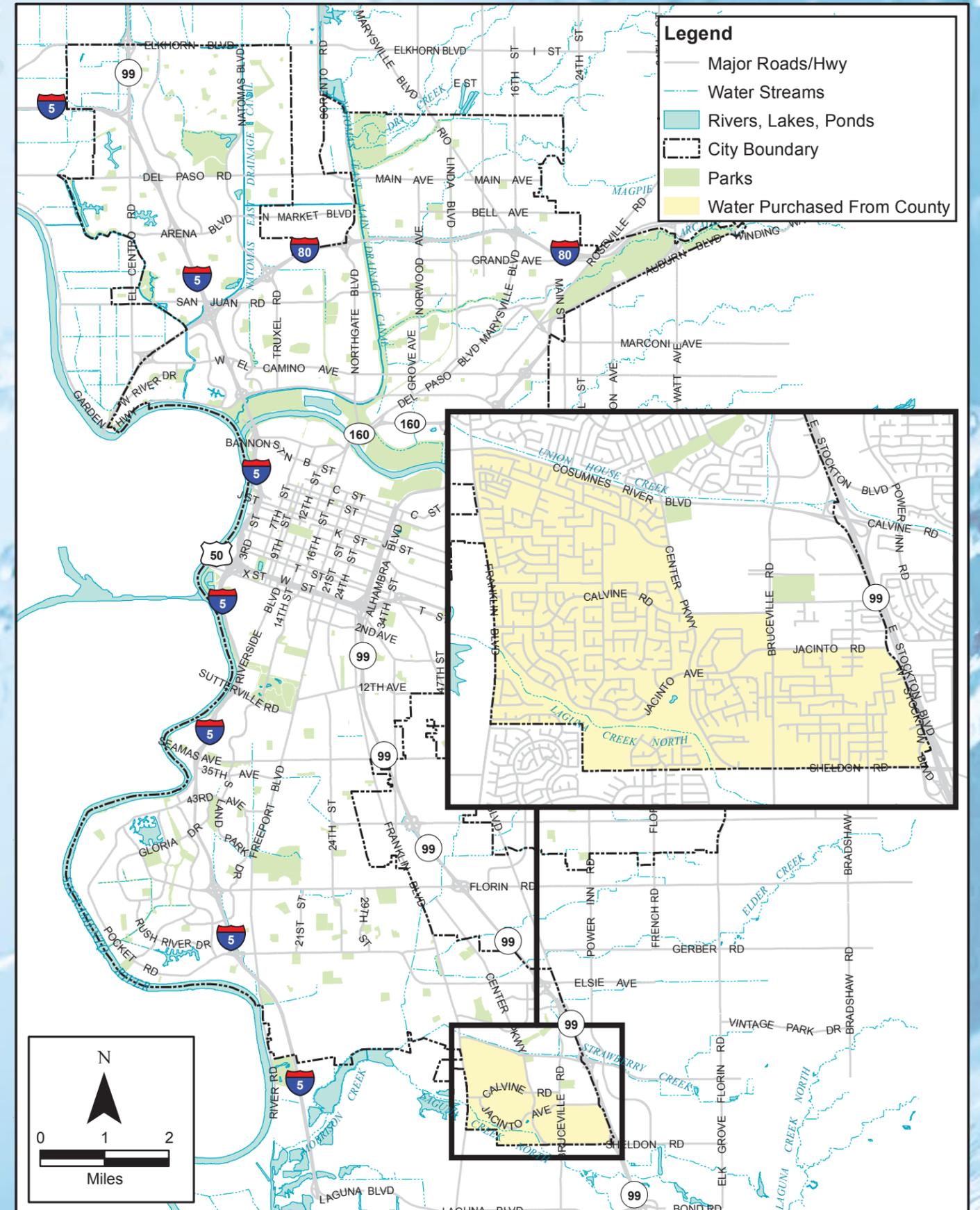
**CYANOBACTERIA**

Cyanobacteria, common to freshwater ecosystems, can under certain conditions form scum or "blooms" at the surface of a water body. These blooms are capable of producing compounds, some of which can be harmful to human health and others which affect the taste and odor of drinking water. While none of these compounds are presently regulated in drinking water, the City of Sacramento did voluntarily monitor for several of them during 2015.

Microcystins and cylindrospermopsin, which were subject to USEPA Health Advisories, were monitored throughout 2015 but were not detected. Geosmin and 2-Methylisoborneol (MIB) are considered an aesthetic issue; they can give water an earthy, musty taste, even at very low levels and are not removed by conventional treatment processes. Geosmin levels ranged between non-detect and 26 parts per trillion while MIB results ranged between non-detect and 8.3 parts per trillion in our source water.



## LOCATION MAP Water Purchased from County



### Sacramento County Water

The City of Sacramento purchased water from Sacramento County Water Agency (SCWA) for a period of 90 days from 12/31/14 to 4/2/15. This water was served to customers in the area highlighted in yellow in the map to the right. We use chlorine to control pathogens in drinking water; however, chlorine is also known to combine with natural organic matter in the water to form disinfection byproducts (DBPs) such as trihalomethanes (THMs). THMs are regulated in drinking water based on evidence that cancer risk is increased with exposure to elevated levels of THMs over an average lifespan of 70 years. In winter of 2014, it was determined that

the highlighted area was at risk for receiving elevated levels of trihalomethanes during the next quarter. In light of this information, the decision was made to obtain water for this area from SCWA for the next 90 days. Because SCWA's water is primarily sourced from groundwater, it is not as susceptible to DBP formation. Additional monitoring performed during this period confirmed that DBP levels were lowered. The City is in the process of establishing a new potable groundwater well for this area, which is expected to mitigate seasonal DBP concerns. For customers in the affected area, the following tables from SCWA show SCWA's water quality information for 2015.

# SACRAMENTO COUNTY WATER AGENCY

## 2015 WATER QUALITY REPORT - LAGUNA / VINEYARD / CCE / GRANTLINE 99 (See Note #1)

### DETECTED PRIMARY STANDARDS - Mandatory Health-Related Standards Established by the State Water Resources Control Board (State Board)

CONSTITUENT	SAMPLE DATE	UNITS	PHG or (MCLG) or (MRDLG)	MCL OR (MRDL)	MAJOR SOURCES IN DRINKING WATER	SURFACE WATER (see #2)		GROUNDWATER	
						RANGE (LO-HI)	WEIGHTED AVERAGE	RANGE (LO-HI)	WEIGHTED AVERAGE
<b>INORGANIC CONTAMINANTS</b>									
Arsenic	2007 - 2015	PPB	0.004	10	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.	ND - 3.3	ND	ND - 6.3	ND
Barium	2007 - 2015	PPM	2	1	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits.	ND	ND	ND - 0.39	ND
Chromium (Total Cr)	2014 - 2015	PPB	(100)	50	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits. Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits.	ND	ND	ND - 11	ND
<b>3</b> Hexavalent Chromium	2006 - 2015	PPB	0.02	10	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.	ND	ND	ND - 8.9	1.4
Fluoride (Natural Source)	2014 - 2015	PPM	1	2	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.	ND	ND	ND - 0.4	0.1
Nitrate (as NO3)	2014 - 2015	PPM	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.	ND	ND	ND - 15	ND
Nitrate + Nitrite as Nitrogen (N)	2006 - 2015	PPB	10000	10000	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.	ND	ND	ND - 3400	431

### REGULATED ORGANIC CHEMICALS

<b>4</b> Total Trihalomethanes	2006 - 2015	PPB	n/a	80	Byproduct of drinking water disinfection.	ND	ND	ND - 52	0.35
<b>RADIOACTIVE CONTAMINANTS</b>									
Gross Alpha Activity	2005 - 2015	pCi/l	(0)	15	Erosion of natural deposits.	ND	ND	ND - 6.1	ND
<b>5</b> Uranium	2005 - 2015	pCi/l	0.43	20	Erosion of natural deposits.	ND	ND	ND - 6.7	ND
Radium 226	2005 - 2009	pCi/l	0.05	n/a	Erosion of natural deposits.	ND	ND	ND - 2.42	ND
Radium 228	2005 - 2009	pCi/l	0.019	n/a	Erosion of natural deposits.	ND	ND	ND - 3.18	ND

### DISTRIBUTION SYSTEM

						RANGE	AVERAGE		
Chlorine Residuals	2015	PPM	[4]	[4.0]	Drinking water disinfectant added for treatment.	0.87 - 1.3			1.12
Total Trihalomethanes	2015	PPB	n/a	80	Byproduct of drinking water disinfection.	ND - 41			20.6
<b>6</b> Haloacetic Acids	2015	PPB	n/a	60	Byproduct of drinking water disinfection.	ND - 26			11.3
<b>7</b> Fluoride (Treated - Distribution)	2015	PPM	1	2	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.	0.64 - 0.79			0.72
<b>8</b> Control of DBP Precursors (TOC)	2015	PPM	n/a	TT	Various natural and manmade sources	0.89 - 1.5			1.1

### MICROBIOLOGICAL CONTAMINANTS

						LEVEL FOUND			
<b>9</b> Total Coliform Bacteria	2015	% of Positive Samples	(0)	> 5% of Monthly Samples are Positive	Naturally present in the environment.			0.81%	
			n/a	TT = 1 NTU				0.171 NTU	
<b>10</b> Turbidity	2015	NTU	n/a	TT = 95% of Samples < 0.3 NTU	Soil Runoff			100%	

### SECONDARY STANDARDS - Aesthetic Standards

#### Established by the State Water Resources Control Board (State Board)

	SAMPLE DATE	UNITS			MAJOR SOURCES IN DRINKING WATER	SURFACE WATER		GROUNDWATER	
						RANGE	WTD. AVG.	RANGE	WTD. AVG.
Color	2007 - 2015	Units	n/a	15	Naturally-occurring organic materials.	ND	ND	ND - 5	2.9
<b>11</b> Iron	2007 - 2015	PPB	n/a	300	Leaching from natural deposits; industrial wastes.	ND	ND	ND - <b>400</b>	ND
<b>12</b> Manganese	2007 - 2015	PPB	n/a	50	Leaching from natural deposits.	ND	ND	ND - <b>300</b>	ND
Odor-Threshold	2007 - 2015	Units	n/a	3	Naturally-occurring organic materials.	ND	ND	ND - 3	1
<b>13</b> Turbidity	2007 - 2015	Units	n/a	5	Soil runoff.	1.8 - 3.2	2.5	ND - 0.54	0.1
Zinc	2007 - 2015	PPM	n/a	5	Runoff/leaching from natural deposits; industrial wastes.	ND	ND	ND - 0.08	ND
Total Dissolved Solids	2007 - 2015	PPM	n/a	1000	Runoff/leaching from natural deposits.	97 - 120	109	160 - 330	211
Specific Conductance (E.C.)	2007 - 2015	umhos/cm	n/a	1600	Substances that form ions when in water; seawater influence.	150 - 200	175	200 - 520	279
Chloride	2007 - 2015	PPM	n/a	500	Runoff/leaching from natural deposits; seawater influence.	6.4 - 7.8	7.1	3 - 200	13
Sulfate	2007 - 2015	PPM	n/a	500	Runoff/leaching from natural deposits; industrial wastes.	5 - 7.1	6.1	ND - 11	2
Aggressive Index	2005 - 2009	AI	n/a	non-corrosive		11 - 12	11.5	11 - 12.2	12
Corrosivity (Langlier Index at 60° C)	2005 - 2009	LI	n/a	non-corrosive	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors.	-0.7 / -0.21	-0.46	-0.09 / 0.7	-0.2

### OTHER CONSTITUENTS ANALYZED

pH	2007 - 2015	Units	n/a	MO		7.9 - 8.2	8.0	7.9 - 8.2	8.1
Total Hardness (as CaCO3)	2007 - 2015	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	59 - 74	67	13 - 420	71
<b>14</b> Total Hardness (as CaCO3)	2007 - 2015	Grains	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	3.5 - 4.3	3.9	0.8 - 24.6	4.2
Total Alkalinity (as CaCO3)	2007 - 2015	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	51 - 81	69	88 - 230	118
Bicarbonate (as HCO3)	2007 - 2015	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	63 - 99	85	100 - 280	136
Sodium	2007 - 2015	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	10 - 15	13	15 - 63	30
Calcium	2007 - 2015	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	12 - 15	14	3.3 - 97	14
Magnesium	2007 - 2015	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	7.1 - 8.7	7.9	ND - 42	8

### LEAD & COPPER (See Note 15)

CONTAMINANT	SAMPLE DATE	UNITS	PHG or (MCLG)	ACTION LEVEL	MAJOR SOURCES IN DRINKING WATER	NUMBER OF SAMPLES	90TH % LEVEL DETECTED	NUMBER EXCEEDING AL
Lead	2013	PPB	(0.2)	15	Internal corrosion of household water plumbing systems; discharges from industrial manufactures; erosion of natural deposits.	51	ND	0
Copper	2013	PPM	(0.3)	1.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	51	0.17	0

### UNREGULATED CONTAMINANT MONITORING RULE (UCMR 3) - Established by USEPA (See Note 16)

CHEMICAL	SAMPLE DATE	UNITS	Notification Level	HEALTH EFFECTS LANGUAGE	DISTRIBUTION SYSTEM RANGE	DISTRIBUTION SYSTEM AVERAGE	SURFACE WATER RANGE	SURFACE WATER WTD. AVG.	GROUNDWATER RANGE	GROUNDWATER WTD. AVG.
Molybdenum	2013 - 2014	PPB	n/a		ND	ND	ND	ND	ND - 2	0.3
Strontium	2013 - 2014	PPB	n/a		68 - 140	107	68 - 140	101	40 - 500	218
Vanadium	2013 - 2014	PPB	50	The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.	ND - 4	ND	ND	ND	ND - 34	15
<b>17</b> Chlorate	2013 - 2014	PPB	800		100 - 300	157	100 - 300	163	31 - <b>1200</b>	179
Bromomethane	2013 - 2014	PPB	n/a		NA	NA	ND	ND	ND - 2.1	ND
Chloromethane	2013 - 2014	PPB	n/a		NA	NA	ND	ND	ND - 1	ND

### EXCEEDENCE:

**Last year, we conducted more than 40 test to analyze over 40 contaminants per test. The following contaminants exceeded the secondary standards maximum contaminant level.**

CONTAMINANT:	SAMPLE DATE:	UNITS	MCL	RESULT	LOCATION:	QUALITY EFFECTS / SOURCE OF CONTAMINANT:
Iron	7/27/15	PPB	300	400	Wildhawk WTP (WT-03)	Leaching from natural deposits.
Manganese	11/23/15	PPB	50	300	East Park WTP (WF-03)	Leaching from natural deposits.

### LEGEND

AL.....Aggressive Index	MPN.....Most Probable Number	NR.....Not Required	PPT.....Parts per trillion, or Nanograms per liter
AL.....Regulatory Action Level	NA.....Not Analyzed	NTU.....Nephelometric Turbidity Units	TOC.....Total Organic Carbon
LI.....Langlier Index	n/a.....Not Applicable	pCi/L.....Pico Curies per liter	TT.....Treatment Technique
MFL.....Million Fibers Per Liter	ND.....Non Detectable	PPB.....Parts per billion (ug/l)	WTP.....Water Treatment Plant
MO.....Monitored Only	NL.....Notification Level	PPM.....Parts per million (mg/l)	

### DEFINITIONS

- Average:** The annual average of all tests for a particular substance.
- Detection Limit for Reporting:** The limit at or above which a contaminant is detected.
- Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
- Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.
- Maximum Residual Disinfectant Level (MRDL):** 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.
- Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- Primary Drinking Water Standards (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.
- Range (Lo - Hi):** The range between the lowest and highest values of a specific substance measured throughout the course of the year.
- Regulatory Action Level:** 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.
- Weighted Average (WTD AVG):** An average of water quality samples in which each sample is assigned a weight. Each sample's contribution (or weight) is based on the amount of water the corresponding water source produces for the whole system. Instead of each of the sample results contributing equally to the final average, some of the results contribute more than others.

### NOTES:

- .....The state allows SCWA to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.
- .....Surface Water is from SCWA's Vineyard Surface Water Treatment Plant (VSWTP). VSWTP came online in September 2011 and provided 27.23% of the water distributed to customers in the Laguna, Vineyard, CCE & Grantline-99 area in 2015. SCWA received no water from the City of Sacramento. For more information regarding the City of Sacramento's water quality data, go online (<http://portal.cityofsacramento.org/Utilities/Education/water-quality>) or call (916) 808-5371 or (916) 808-5426.
- .....The State of California has set 10 PPB as the MCL for chromium-6, beginning July 1, 2014. Chromium-6 is one of the forms of chromium making up total chromium which has a California MCL of 50 PPB. For more information about Chromium-6, please visit the State Water Resources Control Board's website: [www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/Chromium6](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Chromium6).
- .....Total Trihalomethanes = sum of results for Chloroform, Bromoform, Dibromochloromethane, & Bromodichloromethane.
- .....The State Water Resources Control Board allows the measurement of gross alpha radiation as a surrogate for Uranium.
- .....Haloacetic Acids = sum of results for Bromochloroacetic acid, Dibromoacetic acid, Dichloroacetic acid, Monochloroacetic acid, & Trichloroacetic acid
- .....The Laguna-Vineyard water system's facilities are all fluoridated and the system is currently at optimal levels. The Optimal Fluoride Level and Control Range for the system is based on an annual average of maximum daily air temperatures in the Laguna-Vineyard area. In accordance with Title 22, Section 64433.2 of the State Water Resources Control Board (State Board) regulations, the Optimal Fluoride Level is 0.8 mg/L and the Fluoride Control Range is from 0.7 mg/L - 1.3 mg/L. Information about fluoridation, oral health, and current issues is available from [www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/Fluoridation.shtml](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml).
- .....Only Surface water sources must monitor for Disinfection By-Product precursors. Treatment Technique is not required if the raw or treated water TOC is < 2 mg/L.
- .....On Systems that collect more than 40 samples per month, the Total Coliform Bacteria MCL is 5% of the monthly samples return total coliform positive, per the Total Coliform Rule (TCR). A positive TC sample triggers collection of samples for E. coli at the source (i.e., groundwater wells) per the federal Ground Water Rule (GWR). In 2015, all samples taken per the GWR returned negative (absent) for E. coli.
- .....Turbidity is a measure of the cloudiness of the water. 0.171 NTU is the highest individual measurement in 2015. 100% is the lowest percentage of monthly samples which were in compliance below the 0.3 NTU range. SCWA monitors turbidity because it is a good indicator of the effectiveness of its filtration systems. Only surface water sources must comply with PDWS for turbidity.
- .....Iron exceeded the MCL of 300 PPB; however the weighted average for iron in the Laguna/ Vineyard/ CCE/ Grantline99 water system is Non-Detect. Small quantities of iron are naturally found in some water sources. The presence of iron in drinking water may produce an undesirable taste, stain laundry and plumbing fixtures, and promote microbial growth in water distribution systems.
- .....Manganese exceeded the MCL of 50 PPB; however, the re-sample taken a week later returned Non-detect. The weighted average for manganese in the Laguna/ Vineyard/ CCE/ Grantline99 water system is Non-Detect. Water naturally contains small amounts of manganese. Manganese in food or drinking water presents few adverse effects; however, elevated concentrations of manganese in water may stain laundry, produce an undesirable odor and taste, contribute to microbial growth and turbidity, or form a coating inside pipes which can peel off as solid precipitates.
- .....This reading of turbidity is taken at the raw source for surface water (Freepport Regional Water Project) and source water for the groundwater.
- .....Hardness units are PPM. Most commercial companies use "grain" units. Conversion: 17.1 PPM = 1 grain
- .....The levels for Lead and Copper concentrations were obtained from the 90th percentile of fifty-one (51) tap water samples taken throughout the Laguna-Vineyard system. The MCLs for lead and copper are set at "Action Levels." None of the samples in Laguna-Vineyard exceeded the Action Levels for Lead and Copper. Please refer to the educational information on Lead in drinking water.
- .....Unregulated Contaminants Monitoring Rule (UCMR 3 / 2013 - 2015 Monitoring) with notification Levels help to determine where certain contaminants occur and whether they need to be regulated.
- .....SCWA completed its UCMR3 Monitoring Program between 2013-2014, within that time, one well exceeded the Notification Level (NL) for chlorate: Equine Well (W-63). Chlorate is an anion that can enter drinking water from several potential sources, including from hypochlorite or chlorine dioxide disinfectant use, ozone oxidation of hypochlorite or chlorite and source water contamination from pesticide runoff or papermill discharges. This well has since been taken off-line due to its chlorate exceedance and for repairs. A confirmation sample will be taken when all repairs have been completed for this well source.

**In 2015, SCWA received surface water from its Vineyard Surface Water Treatment Plant (<28 %).**

For more detailed water quality information, call (916) 875-5815.

### State Mandated Information for Arsenic & Lead:

**Arsenic:** 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. Environmental Protection Agency 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.

**Lead:** 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 Sacramento County Water Agency 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

### Cryptosporidium:

Cryptosporidium is a microbial pathogen found in surface water (e.g., rivers, lakes and streams) throughout the United States. SCWA's raw surface water source is the Sacramento River. Our monitoring of the source water indicates the presence of these organisms. From 2005 to 2007, SCWA took monthly Cryptosporidium samples. Of the 24 samples taken, only four detected the pathogen in the raw water. The results ranged from non-detect (ND) to 0.2 Oocysts/ 10 liters. The average analysis result was 0.2 Oocysts/ 10Liters. SCWA's surface water is highly treated with a thorough disinfection and filtration process to remove Cryptosporidium before distribution to the customer; however, the most commonly used filtration methods cannot guarantee 100 percent removal. Ingestion of Cryptosporidium may cause cryptosporidiosis, and abdominal infection, the symptoms of which include nausea, cramps, diarrhea, and associated headaches. We encourage immune-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection.

City of  
**SACRAMENTO**  
Department of Utilities

**For water quality questions or to report a concern**

City of Sacramento Department of Utilities  
311 or 916-264-5011  
(24 hours a day, 7 days a week)  
[www.cityofsacramento.org/utilities](http://www.cityofsacramento.org/utilities)

**Additional water quality information is available**

USEPA Safe Drinking Water Hotline  
(800) 426-4791  
<http://water.epa.gov/drink/>

**Notice of opportunity for public participation**

The Sacramento City Council holds public meetings most Tuesdays at 6 p.m. in the City Council Chambers at 915 I Street, Sacramento. You can access Council agendas at [www.cityofsacramento.org/clerk](http://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.

ລາຍງານນີ້ມີຂໍ້ມູນສຳຄັນກ່ຽວກັບນ້ຳປະປາຂອງທ່ານ. ຈົ່ງໃຫ້ຄົນອື່ນແປຄວາມໃຫ້ທ່ານ, ຫລືໃຫ້ປຶກສາກັບຄົນໃດຄົນໜຶ່ງທີ່ຂ້າໃຈເລື້ອງ.

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 koj cov dej haus. Thov ib tus tibneeg pab txhais rau koj lossis nrog tej tus tibneeg uas totaub txog tsab ntawv no tham.

Ang report na ito ay naglalaman ng mahalagang impormasyon tungkol sa tubig na inyong iniinum. Magpatulong sa taong maaring magsalin, o makipag-usap sa taong nakakaunawa nito.

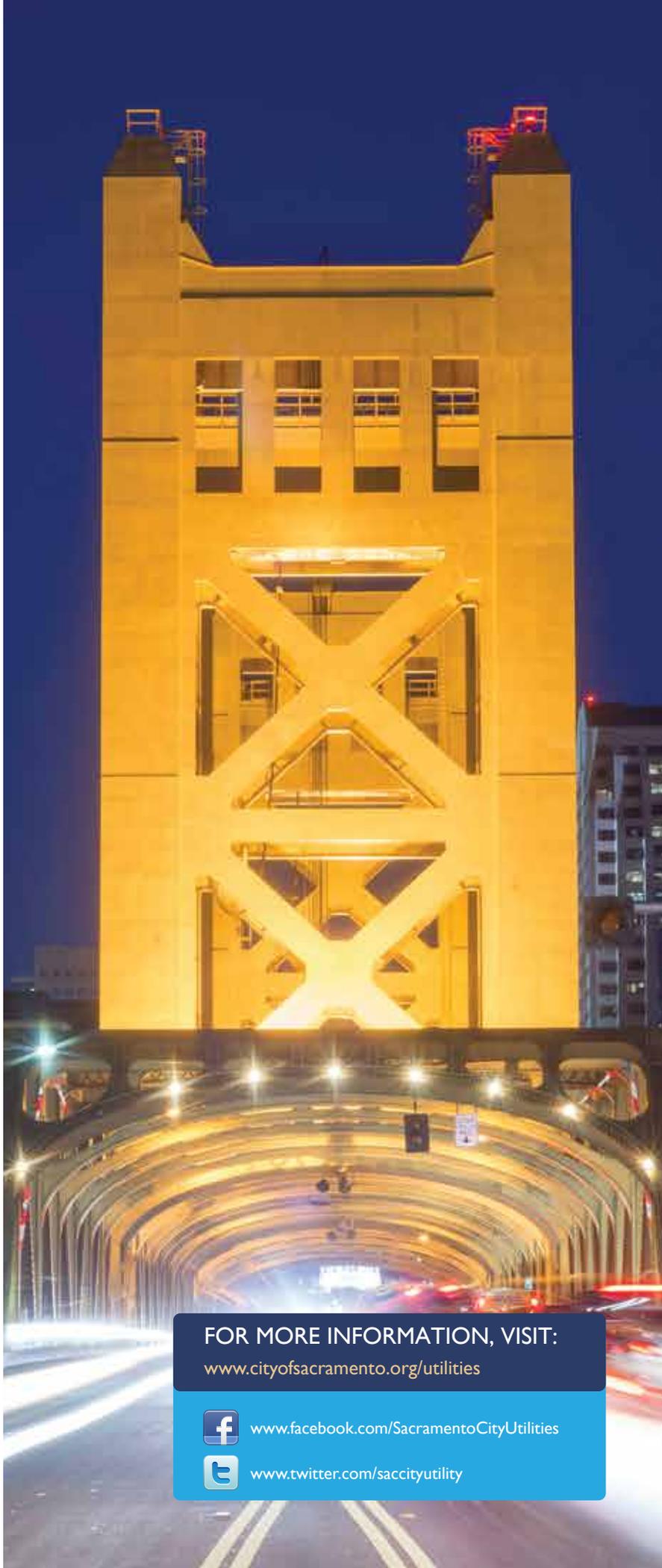
Данный рапорт содержит важную информацию о вашей питьевой воде. Переведите его или проконсультируйтесь с тем, кто его понимает.



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