2012 ANNUAL WATER QUALITY REPORT

Proudly serving you since 1866



Take Back the Tap!

San Jose Water Company (SJWC) is pleased to deliver its first electronic Consumer Confidence Report (CCR). Late last year the US Environmental Protection Agency issued guidelines to authorize the electronic delivery of the CCR. SJWC adopted the guidelines because they are more environmentally friendly and over time will provide for a more engaging and effective tool to provide you important information about your water quality. Please note that you may request a printed copy of the CCR by calling (408) 279-7900.

This year's CCR theme, "Take Back the Tap" focuses on the healthy and environmentally friendly alternative that tap water provides to bottled water and sugary drinks. The theme is designed to highlight a resource that is available to all and can have significant cost and health benefits over purchased drinks. Tap water costs on average 2,000 times less than bottled water, reduces the risk of obesity when substituted for drinks containing sugar, and improves overall health. It is a local resource that provides for public health protection, firefighting capability, and the economic health of the communities where we live, work, and play.

SJWC's main goal is to deliver the best water possible to our customers at a reasonable cost. This passion for quality and service is exemplified by many of our daily activities that are designed to ensure that every drop of the water we deliver to you is safe and of high quality. These activities include not only making necessary







investments to modernize and replace infrastructure but also the continuous monitoring of the water quality throughout SJWC's water distribution system. Over 400 samples are taken every month and are analyzed for Coliform bacteria (a sanitary quality indicator organism), chlorine residuals, and other analytes as required by regulatory or operational needs. In addition to this routine monitoring, SJWC has embarked on several water guality initiatives. These initiatives include an American Water Works Association (AWWA) sponsored self-assessment of the distribution system, an AWWA Research Foundation study of naturally occurring low level hexavalent chromium in groundwater, and research studies to balance the use of chlorine as a disinfectant while minimizing the formation of disinfection by-products.

Tap water is often taken for granted. It is always there when needed 24/7, 365days of the year. At less than a penny per gallon, it is not only affordable but also one of the best deals around. Making sure that our customers have safe drinking water available when they need it is what SJWC is all about. Our dedicated team of professionals works every day to ensure that our customers don't have to think about where their next glass of water will come from or whether or not that drink is safe. Every drop of water that is delivered to you has been treated and tested to ensure that it meets or surpasses all drinking water regulations and is safe and refreshing to drink.

Take back the tap and to your health!

Water Quality Guidance

Source Water Assessment

An assessment of the drinking water sources for SJWC's water system was completed in December 2002. SJWC's wells are considered most vulnerable to one or more of the following activities, which have not been associated with any contaminants detected in the water supply: dry cleaners, automobile gas stations and repair shops, and underground storage tanks. Some of SJWC's wells are also considered vulnerable to metal plating and finishing, photo processing/printing, electrical/electronics manufacturing, chemical/petroleum processing/storage, known contaminant plumes, and plastics/synthetics producers. SJWC's surface supplies are considered most vulnerable to low density septic systems. Imported surface water purchased from Santa Clara Valley Water District (SCVWD) is considered most vulnerable to a variety of land use practices, such as agricultural and urban runoff, recreational activities, livestock grazing, as well as residential and industrial development. In addition, local sources are vulnerable to potential contamination from commercial stables and historic mining practices. Although these activities exist in areas near one or more of SJWC's or SCVWD's sources, physical barriers, treatment systems, and monitoring programs are in place to ensure that water supplied to our customers is not adversely affected. Customers seeking additional information may view a copy of the assessment during normal business hours at SJWC's offices at 110 West Taylor Street, San Jose.

Special Populations

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, persons with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/ Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791. Additional information is available from the California Department of Public Health (CDPH) Division of Communicable Disease Control at (510) 540-2566 or the Santa Clara County Department of Environmental Health at (408) 918-3400.

Drinking Water Regulation

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791). The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Turbidity

Turbidity is a measure of cloudiness in the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

Nitrate

Nitrate in drinking water at levels above 45 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. Nitrate levels in SJWC water sources are shown in the enclosed table. In 2012, SJWC did not detect nitrate at or above 45 mg/L in any sources.

Fluoride

For information on fluoride in your drinking water please visit our website at www.sjwater.com

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SJWC tests your water supplies for over 200 possible contaminants. Only those contaminants that were detected in any of our water sources appear in this table. Primary standards relate to public health, while secondary standards relate to aesthetic qualities such as taste, odor and color. CDPH allows us to monitor for some

contaminants less than once per year because the concentrations do not change frequently. Some of the data reported below, although representative, are more than one year old. Data for radionuclides, microbiological, turbidity, secondary standards and inorganic and organic chemicals are all from testing performed in 2012.

Parameter	Units	MCL	PHG	Groundwater		Imported Surface		Mountain Surface Water		Typical
			or MCLG	Average	Range	Average	Range	Average	Range	Sources**
Inorganic Chemicals										
Aluminum	ppm	1	0.6	0.08	ND - 0.20	ND	ND - 0.08	ND	ND - 0.11	1,4
Barium	ppm	1	2	0.14	ND - 0.22	ND	ND	ND	ND	1
Fluoride	ppm	2	1	0.17	ND - 0.56	ND	ND - 0.1	0.17	0.15 - 0.21	1
Nitrate (as NO3)	ppm	45	45	16	ND - 33	ND	ND - 3.7	ND	ND	1, 2
Radionuclides										
Gross Alpha Activity	pCi/L	15	15	ND	ND - 5.82	ND	ND	ND	ND	1
Combined Radium	pCi/L	5	0	ND	ND - 1.0	ND	ND	ND	ND	1
Volatile Organic										
1,1- Dichlorethylene	ppb	6	10	ND	ND - 5.2	ND	ND	ND	ND	7
1,1,1-Trichlorethane	ppb	200	1000	ND	ND - 3.3	ND	ND	ND	ND	8
Clarity						Leve	el Found	Level Found		
Turbidity	NTU	TT = 1 NTU	none	NA		0.07		0.24		11
	NTU	TT= 95% of samples	none	NA		100%		100%		
		≤ 0.3 NTU								
Microbiological				SJWC Distribution System						
				Range			Highe			
Coliform Bacteria	%	> 5% of monthly	0	0 0 - 0.69%			0.69%			10
		samples positive								
Lead and Copper		AL	PHG	SJWC at the tap Sampling (2011)						
				90 th Percentile Level			# of sites above AL			
Lead	ppb	15	0.2		ND		0 of 51			1, 14
Copper	ppm	1.3	0.3	ND			0 of 51		1, 14	
Disinfection Byproducts		MCL	PHG or MCLG	Compliance Le		evel	Range			
Total Trihalomethanes	ppb	80	none	70.7			ND - 80			9
Haloacetic Acids	ppb	60	none	51.4			ND - 79.8			9
Disinfection		MRDL	MRDLG	SJWC Distribution System Running Annual Average						
Total Chlorine	ppm	4.0 as Cl ₂	4 as Cl_2	1.1 ppm						

Primary Standards — Mandatory Health-Related Standards

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Parameter	Units	MCL	PHG or	Groundwater		Imported S	urface Water	Mountain Surface Water		Typical
			MCLG	Average	Range	Average	Range	Average	Range	Sources**
Odor-Threshold	TON	3	none	ND	ND	1	1 - 1	ND	ND	12
Hardness(as CaCO3)	ppm	none	none	277	192 - 364	103	67 - 127	181	169 - 193	1
Chloride	ppm	500	none	46	ND - 68	78	54 - 85	20	18 - 22	3, 6
Iron	ppb	300	none	120	ND - 450*	ND	ND	ND	ND	3, 5
Manganese	ppb	50	none	ND	ND - 29	ND	ND	ND	ND	3
Sodium	ppm	none	none	28	15 - 60	51	42 - 62	22	20 - 24	1
Sulfate	ppm	500	none	46	4 - 68	47	24 - 66	36	34 - 39	3, 5
Total Dissolved Solids	ppm	1000	none	422	290 - 720	279	184 - 364	220	210 - 230	3
Conductivity	umho/cm	1600	none	642	ND - 770	489	337 - 583	392	358 - 430	6, 13

Secondary Standards — Aesthetic Standards

* Single sample concentration. MCL compliance based on 4 quarter average.

**Typical Sources of Chemical Constituents

1. Erosion of natural deposits 2. Runoff and leaching from fertilizer use 3. Runoff and leaching of natural deposits 4. Residue from some surface water treatment processes 5. Industrial waste 6. Seawater influence 7. Discharge from industrial chemical factories 8. Discharge from metal degreasing sites and other factories 9. By-product of drinking water disinfection 10. Naturally present in the environment 11. Soil erosion and stream sediments 12. Naturally occurring organic materials 13. Substances that form ions when in water 14. Internal corrosion of household plumbing systems

Important Definitions

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.

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

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

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

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

One part per million (ppm): is the same as one milligram per liter (mg/L). One ppm corresponds to a single penny in \$10,000 or one minute in two years. **One part per billion (ppb):** is the same as one microgram per liter (ug/L). One ppb corresponds to a single penny in \$10,000,000 or one minute in two thousand years.

Detection Limit for Purposes of Reporting (DLR): The lowest level of a constituent that the Department of Public Health requires to be reported.

Nephelometric Turbidity Units (NTU): This is a measure of the cloudiness of the water.

Not Detected (ND): If a constituent is not measured at or above a DLR, it is reported as ND.

Not Analyzed (NA): Source designated non-vulnerable or testing not required. **TON:** Threshold Odor Number, a measure of odor.

umho/cm: micromho per centimeter, a measure of electrical conductivity. **pCi/L:** picocuries per liter, a measure of radioactivity.

SJWC Service Area and Water Supply Sources

SJWC provides water from three major sources. The first source is groundwater, which is pumped from over 100 wells that draw water from the Santa ClaraValley Groundwater Basin. The second source is local mountain surface water, which is collected in our watershed in the Santa Cruz Mountains and treated at our two treatment plants. The third source, imported surface water, is provided by the Santa Clara Valley Water District, (SCVWD) our wholesale supplier. A majority of imported water originates as Sierra snowmelt and travels through the State and

Federal water projects before treatment at SCVWD's three treatment plants. A smaller portion is impounded in local reservoirs in Santa Clara County.



Primarily Groundwater

Primarily SCVWD Treated Imported Water

Primarily SJWC Treated Mountain Surface Water

Reminder for Dialysis Patients and Aquarium Owners

Chloramine and chlorine may be present in the

water provided by SJWC. These chemicals are used to protect public health by destroying diseasecausing organisms. Except for a slight chlorinous taste or odor, these disinfectants will not cause any problems for the general public. However, home dialysis patients and aquarium owners must take special precautions before the water can be used in kidney dialysis machines or aquariums. Please consult your doctor or dialysis technician to be sure your home equipment is adequate and proper tests are being performed every time it is used. Before filling an aquarium or fish pond, the disinfectant must be removed. Your local tropical fish store can help determine the best water treatment for your fish.

Your drinking water is continually tested to ensure compliance with state and federal standards for quality and safety. This annual report summarizes the results of more than 17,000 water quality tests conducted throughout the year. If you have any questions about your water quality, service, or the information contained in this report, please call us at (408) 279-7900 during normal business hours (Monday through Friday between 8:00 a.m. and 5:30 p.m.). Or, you may contact the USEPA Safe Drinking Water Hotline at 1-800-426-4791 for additional public information about the SafeDrinking Water Act or USEPA's drinking water regulatory programs.

This brochure provides a snapshot of last year's water quality data for SJWC. Included are details about where your water comes from and how your water quality compares to State standards. As you can see, in 2012, as in years past, your tap water met all USEPA and State primary drinking water health standards.

To Learn More about the Quality of Your Water

Drinking Water Information on the Internet

Detailed information about specific drinking water topics is available on the Internet. Visit our web site or any other of those listed below to find out more about water treatment, quality, and current regulations.

San Jose Water Company: www.sjwater.com Santa Clara Valley Water District: www.valleywater.org American Water Works Association: www.awwa.org California Department of Public Health Division of Drinking Water and Environmental Management: http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Regulations.aspx United States Environmental Protection Agency: http://water.epa.gov/drink/

This report is being sent to you in compliance with the Safe Drinking Water Act. Landlords, businesses and schools are encouraged to share this report with nonbilled water users at their locations. Additional copies are available free of charge by calling our office.

Se le está enviando este informe en conformidad con la Ley de Agua Potable Segura. Se alienta a los propietarios, negocios y escuelas a compartir este informe con los usuarios a los que no se cobra el agua en sus centros. Llame a nuestra oficina para obtener más copias sin costo.

Báo cáo này được gửi đến quý vị chiếu theo quy định của Đạo Luật Nước Uống An Toàn. Những người cho thuê nhả, chủ doanh nghiệp và nhà trường được khuyến khích chia sẻ bản báo cáo này với những người sử dụng nước tại chỗ nhưng không nhận hóa đơn. Quý vị có thể xin thêm miễn phí bản sao của báo cáo này bằng cách gọi văn phòng chúng tôi.

這份報告根據《安全飲用水法案》的規定寄發給您。請房東、企業業主以及學校當局 將此報告內容與其所在地點不會收到水費帳單的自來水用戶分享。如需更多的免費報 告副本,請致電本辦公室。



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