

# Consumer Confidence Report 2015

## Annual Water Quality Report



Sacramento Suburban Water District (District) is pleased to present this detailed report on 2015 water quality. Results of samples collected during 2013, 2014 and 2015, as well as other water quality information, were used to prepare this report. As always, providing a high quality, reliable supply of water and superior customer service at the lowest responsible water rate are the District's top priorities.

### Sources of Water

The District has two service areas; North and South. The North Service Area (NSA) is supplied with water from local groundwater wells and, when available, with surface water treated by the San Juan Water District (SJWD). The South Service Area (SSA) is supplied with water from local groundwater wells and, when available, with treated surface water from the City of Sacramento. During the testing of mutual aid improvements in 2015, the District's NSA received a minor amount of surface water from the SJWD.

Water pumped from the wells is chlorinated per State Water Resources Control Board Division of Drinking Water (DDW) requirements to protect you from potential microbiological contaminants. All facilities are operated by state-certified operators. To ensure that your water meets state and federal regulations, the District conducts routine water quality testing at the wells and in the distribution system.

### Overview of Drinking Water

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.

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

*Overview continued on the next page*



### Important Information About...

**Nitrate:** Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. Nitrate (as Nitrogen) in drinking water at levels above 10 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 serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 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.

*Continued on the next page*

## Important Water Information Enclosed

Drinking water, including bottled water may reasonably be expected to contain at least minor 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).

## Source Water Assessments

An assessment of the District's groundwater wells was completed in December 2002. The results of the assessment indicated that wells in both the NSA and SSA are considered most vulnerable to: dry cleaners, gas stations, leaking underground storage tanks, petroleum transmission pipelines, sewer collection systems, contamination caused by illegal activities or dumping, and general urban commercial activities such as automobile repair facilities and photo processors. Both service areas are also vulnerable to industrial activities such as: electronic, plastic and metal manufacturing, petroleum storage facilities and known groundwater contamination plumes. The NSA is also considered vulnerable to historic activities at the former McClellan Air Force Base. The SSA may also be vulnerable to recreational activities associated with the American River. A copy of the complete Source Water Assessment is available at the District's office.

## 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.

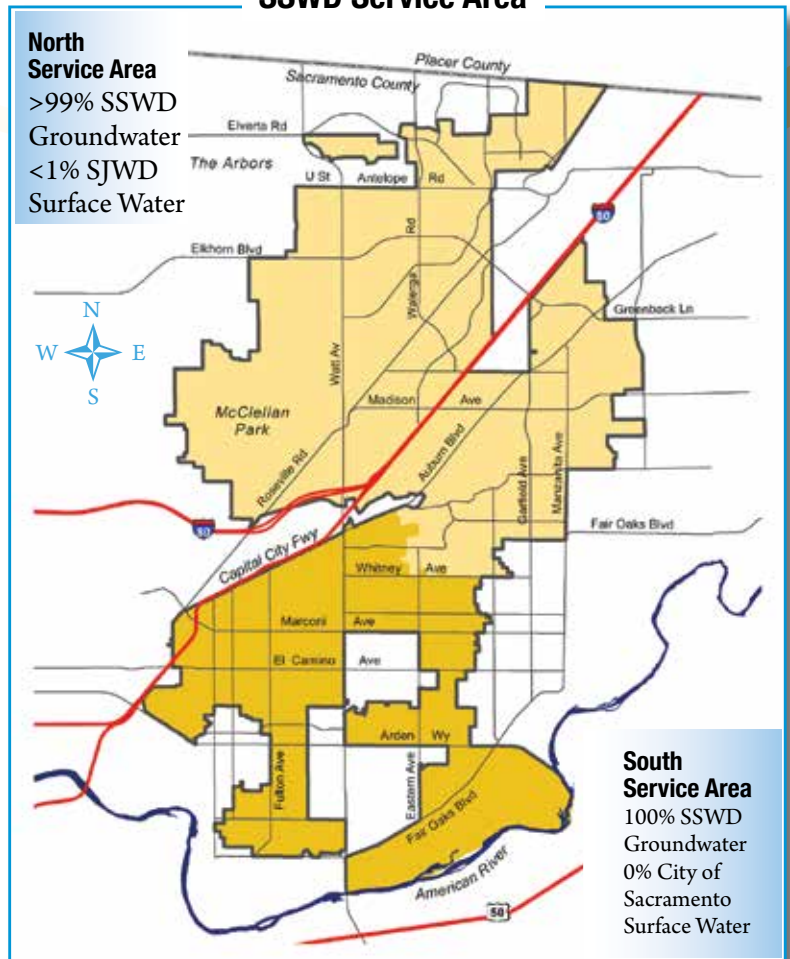
**Inorganic Contaminants** such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

**Pesticides and Herbicides** which 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** which can be naturally-occurring or be the result of oil and gas production and mining activities.

## SSWD Service Area



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**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. The District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at: [www.epa.gov/lead](http://www.epa.gov/lead).



## SSA Water Fluoridation

The District supplements the natural levels of fluoride in the SSA water to levels within DDW's prescribed Fluoride Control Range (0.6 mg/L to 1.2 mg/L). Parents of children that reside in the District's SSA should let their children's pediatricians and dentists know that their drinking water is fluoridated. According to the USEPA/ Centers for Disease Control and Prevention (CDC), drinking water with the right amount of fluoride is a safe and effective way to help keep the surface of teeth strong and help prevent tooth decay. Community water fluoridation is supported by the American Dental Association, American Academy of Pediatrics, U.S. Public Health Service and the World Health Organization.

## Information about Hard Water

A common concern for many customers is water hardness because it can cause scaling and other issues. Water hardness is comprised of naturally-occurring minerals, particularly calcium and magnesium. Though hard water can be a nuisance, it is not known to cause adverse health effects, and thus is not regulated by DDW or USEPA. Effects of hard water may include: scale on plumbing fixtures and appliances; soap scum on shower walls, bathtubs, sinks and faucets; and reduced lathering of soaps, shampoos and household cleaners. Additional information may be found on the District's website at: [sswd.org](http://sswd.org) under the 'Education' tab.

## Water Main Flushing

The District flushes water mains to remove sediments or other contaminants that can accumulate in pipes over time and lead to taste and odor problems. Flushing in dead-end lines also improves disinfectant residual levels. In addition to protecting water quality, flushing helps reduce corrosive conditions associated with biofilm growth that has a potential to lead to pipeline leaks and breaks.

## Water Quality Definitions

**Locational Running Annual Average (LRAA):** The LRAA is a calculation used to determine compliance with a primary drinking water standard (or MCL) at a specific monitoring location.

**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 USEPA.

**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 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.

**Total Organic Carbon (TOC):** Organically-derived carbon that can be naturally occurring or result from human activities.

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

# 2015 Summary of Detected Constituents



## How to Use This Table

1. Find your service area along the top of the chart
2. Compare levels from your system's water to the state and federal standards (MCL), if applicable.

DETECTED PRIMARY DRINKING WATER CONSTITUENTS - Regulated to protect your health																
CONSTITUENT	UNITS	MCL	PHG or (MCLG)	NORTH Service Area								SOUTH Service Area				MAJOR SOURCES
				SSWD (groundwater)				San Juan Water District (surface water)				SSWD (groundwater)				
				RANGE	AVG.	SAMPLE DATE	VIOLATION	RANGE	AVG.	SAMPLE DATE	VIOLATION	RANGE	AVG.	SAMPLE DATE	VIOLATION	
Aluminum	PPM	1	0.6	ND	ND	2013-2015	No	ND	ND	2015	No	ND-0.17	ND	2014	No	Erosion of natural deposits
Arsenic	PPB	10	0.004	ND-2.3	ND	2013-2015	No	ND	ND	2013	No	ND-4.0	ND	2014	No	Erosion of natural deposits
Barium	PPM	1	2	ND-0.15	ND	2013-2015	No	ND	ND	2013	No	ND-0.18	ND	2014	No	Erosion of natural deposits
Control of Disinfection By-Product Precursors (TOC) (treated water){A}	PPM	TT = 2	NA	NR	NR	NA	NA	1.1-3.2	1.3	2015	No	NR	NR	NA	NA	Various natural and manmade sources
Fluoride	PPM	2	1	ND-0.26	0.15	2013-2015	No	ND	ND	2013	No	0.6-1.1{B}	0.8	2015	No	Erosion of natural deposits; water additive that promotes strong teeth
Hexavalent Chromium	PPB	10	0.02	1.2-8.5	4.5	2013-2015	No	ND	ND	2015	No	ND-7.6	3.3	2014	No	Erosion of natural deposits; discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile and manufacturing facilities
Nitrate (as Nitrogen)	PPM	10	10	ND-6.55	1.70	2015	No	ND	ND	2015	No	ND-6.32	1.87	2014-2015	No	Leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Tetrachloroethylene (PCE)	PPB	5	0.06	ND-2.2	ND	2013-2015	No	ND	ND	2013	No	ND	ND	2014-2015	No	Discharge from factories, dry cleaners, and auto shops (metal degreaser)
Trichloroethylene (TCE)	PPB	5	1.7	ND-2.3	ND	2013-2015	No	ND	ND	2013	No	ND	ND	2014	No	Discharge from metal degreasing sites and other factories
Gross Alpha	pCi/L	15	(0)	ND-3.58	ND	2013-2015	No	ND	ND	2008	No	ND-3.86	ND	2014	No	Erosion of natural deposits
Combined Radium (Ra226 + Ra228)	pCi/L	5	(0)	ND	ND	2013-2015	No	ND{C}	ND{C}	2008	No	ND-2.11	ND	2014	No	Erosion of natural deposits
Uranium	pCi/L	20	0.43	ND-2.7	1.35	2013-2015	No	NR	NR	NA	NA	ND-3.2	ND	2014	No	Erosion of natural deposits
CONSTITUENT	UNITS	MCL	PHG or (MCLG)	NORTH Service Area								SOUTH Service Area				MAJOR SOURCES
				SSWD (groundwater)				San Juan Water District (surface water)				SSWD (groundwater)				
				LEVEL FOUND	SAMPLE DATE	VIOLATION	LEVEL FOUND	SAMPLE DATE	VIOLATION	LEVEL FOUND	SAMPLE DATE	VIOLATION				
Turbidity{A}	NTU	TT = 1 NTU	NA	NR	NA	NA	NA	0.035 NTU	2015	No	NR	NA	NA	NA	Soil runoff	
	% Samples	TT = 95% of Samples ≤0.3 NTU	NA					100%								No

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# 2015 Summary of Detected Constituents (continued)



DISTRIBUTION SYSTEM															
CONSTITUENT	UNITS	AL	PHG or (MCLG)	90 <sup>TH</sup> PERCENTILE RESULT		NUMBER OF SAMPLES/ NUMBER EXCEEDING ACTION LEVEL		SAMPLE DATE		VIOLATION		MAJOR SOURCES			
Copper (at tap)	PPM	1.3	0.3	0.4		50/0		2013		No		Internal corrosion of household plumbing systems; discharge from refineries and factories; erosion of natural deposits			
CONSTITUENT	UNITS	MCL [MRDL]	PHG or [MRDLG]	RANGE		AVERAGE		SAMPLE DATE		VIOLATION		MAJOR SOURCES			
Chlorine Residual	PPM	[4]	[4]	0.72-0.92		0.83		2015		No		Drinking water disinfectant added for treatment			
Trihalomethanes	PPB	80	NA	ND-27.0		Highest LRAA = 33.0 {D}		2015		No		By-product of drinking water chlorination			
Haloacetic Acids	PPB	60	NA	ND-3.0		Highest LRAA = 2.2 {D}		2015		No		By-product of drinking water chlorination			
DETECTED SECONDARY DRINKING WATER CONSTITUENTS - Regulated for aesthetic qualities															
CONSTITUENT	UNITS	MCL	NORTH Service Area								SOUTH Service Area				MAJOR SOURCES
			SSWD (groundwater)				San Juan Water District (surface water)				SSWD (groundwater)				
			RANGE	AVG.	SAMPLE DATE	VIOLATION	RANGE	AVG.	SAMPLE DATE	VIOLATION	RANGE	AVG.	SAMPLE DATE	VIOLATION	
Aluminum	PPB	200	ND	ND	2013-2015	No	ND	ND	2015	No	ND-170	ND	2014	No	Erosion of natural deposits
Chloride	PPM	500	8.7-69	34	2013-2015	No	2.8	2.8	2013	No	2.8-98	22	2014	No	Runoff/leaching from natural deposits
Manganese	PPB	50	ND-38	ND	2013-2015	No	ND	ND	2013	No	ND	ND	2014-2015	No	Leaching from natural deposits
Odor - Threshold	TON	3	ND	ND	2013-2015	No	2	2	2013	No	ND-2	ND	2014	No	Naturally-occurring organic materials
Specific Conductance	µS/cm	1600	200-480	339	2013-2015	No	58-84	72	2013	No	140-530	312	2014	No	Substances that form ions when in water. Leaching from natural deposits
Sulfate	PPM	500	2.9-15.0	7.1	2013-2015	No	4.8	4.8	2013	No	ND-21.0	6.4	2014	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	PPM	1000	170-340	258	2013-2015	No	41	41	2013	No	120-410	232	2014	No	Runoff/leaching from natural deposits
Turbidity	NTU	5	ND-0.19	ND	2013-2015	No	ND	ND	2015	No	ND-1.00	ND	2014	No	Suspended organic and inorganic particles

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# 2015 Summary of Detected Constituents (continued)



DETECTED UCMR3 MONITORING CONSTITUENTS {E}								
CONSTITUENT	UNITS	NORTH Service Area			SOUTH Service Area			PRIMARY SOURCES/USES
		RANGE	AVERAGE	SAMPLE DATE	RANGE	AVERAGE	SAMPLE DATE	
1,1-Dichloroethane	PPB	ND-0.034	ND	2014-2015	ND-0.038	ND	2014-2015	Halogenated alkane; used as a solvent
1,4-Dioxane	PPB	ND-0.11	ND	2014-2015	ND-0.29	ND	2014-2015	Cyclic aliphatic ether; used as a solvent or solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics, and shampoos
17-beta-Estradiol	PPB	ND-0.0008	ND	2014-2015	ND	ND	2014-2015	Estrogenic hormone naturally produced in the human body; used in pharmaceuticals
Chlorate	PPB	ND-2500	210	2014-2015	ND-2100	274	2014-2015	Decomposition of Sodium Hypochlorite; Disinfection by-product
Chromium (total)	PPB	ND-8.5	4.0	2014-2015	ND-5.7	2.7	2014-2015	Naturally-occurring element; used in making steel and other alloys; Chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation
Hexavalent Chromium (dissolved)	PPB	ND-8.2	4.3	2014-2015	ND-6.6	3.1	2014-2015	Naturally-occurring element; used in making steel and other alloys; Chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation
Molybdenum	PPB	ND	ND	2014-2015	ND-2.8	ND	2014-2015	Naturally-occurring element found in ores and present in plants, animals, and bacteria; commonly used form molybdenum trioxide used as a chemical reagent
Strontium	PPB	120-710	269	2014-2015	66-630	266	2014-2015	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
Vanadium	PPB	0.2-85.0	15.8	2014-2015	0.4-20.0	10.5	2014-2015	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst

ADDITIONAL DRINKING WATER CONSTITUENTS {F}											
CONSTITUENT	UNITS	NORTH Service Area						SOUTH Service Area			MAJOR SOURCES
		SSWD (groundwater)			San Juan Water District (surface water)			SSWD (groundwater)			
		RANGE	AVERAGE	SAMPLE DATE	RANGE	AVERAGE	SAMPLE DATE	RANGE	AVERAGE	SAMPLE DATE	
Alkalinity	PPM	87-150	114	2013-2015	33	33	2010	60-200	108	2014	Leaching from natural deposits
Calcium	PPM	16-42	22	2013-2015	5.2	5.2	2013	13-51	25	2014	Erosion of natural deposits
Hardness	grains/gallon	4.4-11.1	6.4	2013-2015	1.2	1.2	2013	3.0-12.9	7.2	2014	Leaching from natural deposits; hardness is the sum of polyvalent cations present in the water, generally naturally-occurring magnesium and calcium
	PPM	75-190	109		20	20		51-220	123		
Magnesium	PPM	8.4-21	13	2013-2015	1.7	1.7	2013	0.9-25	15	2014	Erosion of natural deposits
pH	NONE	7.7-8.1	7.9	2013-2015	Not Reported	Not Reported	NA	7.4-8.2	7.8	2014	Leaching from natural deposits; a measurement of hydrogen ion activity
Sodium	PPM	11-54	29	2013-2015	2.5	2.5	2013	7.8-62	16	2014	Erosion of natural deposits

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# 2015 Summary of Detected Constituents (continued)



## Key to Abbreviations

NA	Not Applicable
ND	Not Detected
NR	Not Required
NTU	Nephelometric Turbidity Units (a measure of clarity)
pCi/L	Picocuries per liter (a measure of radiation)
PPM	Parts per million or milligrams per liter (mg/l)
PPB	Parts per billion or micrograms per liter (µg/l)
µS/cm	Microsiemens per centimeter
TON	Threshold Odor Number

## Measurements

### PPM (parts per million):

3 drops in 42 gallons  
1 second in 12 days  
1 inch in 16 miles

### PPB (parts per billion):

1 drop in 14,000 gallons  
1 second in 32 years  
1 inch in 16,000 miles

- {A} Only surface water sources must comply with PDWS for Control of Disinfection By-Product Precursors and Turbidity. Turbidity is a measure of the cloudiness of water. It is a good indicator of filtration process effectiveness for water systems that treat surface water.
- {B} Distribution system results; the District's fluoridation program provides the addition of fluoride to the District's SSA drinking water. SSWD adjusts the natural levels of fluoride to be within the DDW's Fluoride Control Range.
- {C} SJWD was not required to monitor for Radium-226; Results only include Radium-228.
- {D} Calculation of the LRAA for the first three quarters of 2015 includes data from 2014.
- {E} Unregulated contaminant monitoring helps USEPA and the DDW to determine where certain contaminants occur and whether they need to be regulated. Both distribution and source water were monitored.
- {F} Constituents listed under "Additional Drinking Water Constituents" are of interest to some consumers, however, they have no regulatory thresholds.

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

## A Note for Sensitive Populations

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 their drinking water from their health care providers. CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1.800.426.4791).

### SSWD Board of Directors

Division 1	Frederick A. Gayle, Jr.
Division 2	Neil W. Schild
Division 3	Robert P. Wichert Vice President
Division 4	Kevin M. Thomas President
Division 5	Craig M. Locke

### Monthly Board Meetings

3<sup>rd</sup> Monday of every month, 6:30 p.m.  
3701 Marconi Ave., Suite 100  
Sacramento

Visit Our Website at:  
[sswd.org](http://sswd.org)



### Need More Information?

For questions about this report, or to request additional copies:  
Call Doug Cater at 916.679.2884

EPA Drinking Water Information:  
[www.epa.gov/your-drinking-water](http://www.epa.gov/your-drinking-water)

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

此份有關你的食水報告,內有重要資料和訊息,請找  
他人為你翻譯及解釋清楚。

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

Once again, your drinking water continues to meet  
all state and federal drinking water standards.

### Please Conserve Water!

The District remains committed to providing its customers with as much information as possible about using water efficiently. Regardless of changing weather conditions, it is important to consider the future of our water supply when making decisions about how we use water today. In an effort to help customers use water more efficiently, the District has assembled a variety of programs, ideas, and references that are designed to reduce water use at home. If you are interested in learning more about what you can do to use water more efficiently inside and outside your home, please visit our website, [www.sswd.org/conservation-tips](http://www.sswd.org/conservation-tips), or call to schedule a Water-Wise House Call. Please help us preserve tomorrow's water supply by conserving water today.

