

# SACRAMENTO COUNTY WATER AGENCY

## 2022 WATER QUALITY REPORT - CENTRAL & SOUTH SERVICE AREA (CSA & SSA) (See Note #1)

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

CONSTITUENT	SAMPLE DATE (See #2)	UNITS	PHG or (MCLG) or [MRDLG]	MCL OR [MRDL]	MAJOR SOURCES IN DRINKING WATER	SURFACE WATER (see #3)		GROUNDWATER	
						RANGE (LO-HI)	WEIGHTED AVERAGE	RANGE (LO-HI)	WEIGHTED AVERAGE
<b>INORGANIC CONTAMINANTS</b>									
Arsenic	2019 - 2022	PPB	0.004	10	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.	ND - 2	ND	ND - 7.4	ND
Barium	2015 - 2022	PPM	2	1	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits.	ND	ND	ND - 0.87	ND
Chromium (Total Cr)	2015 - 2022	PPB	(100)	50	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.	ND	ND	ND - 10	ND
Copper	2015 - 2022	PPM	n/a	1	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	ND	ND	ND - 0.11	ND
Fluoride (Natural Source)	2022	PPM	1	2	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.	ND	ND	ND - 0.47	0.15
Nitrate (as N)	2022	PPM	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.	ND	ND	ND - 3.5	ND
<b>DISINFECTION BYPRODUCTS and DISINFECTION BYPRODUCT PRECURSORS</b>									
4 TTHMs [Total Trihalomethanes]	2015 - 2016	PPB	n/a	80	Byproduct of drinking water disinfection.	ND	ND	ND - 2.7	ND
5 Control of DBP Precursors (TOC)	2022	PPM	n/a	TT	Various natural and manmade sources	0.83 - 1.3	1.01	NA	NA
<b>RADIOACTIVE CONTAMINANTS</b>									
Gross Alpha Activity	2015 - 2022	pCi/L	(0)	15	Erosion of natural deposits.	ND	ND	ND - 5.1	ND
6 Uranium	2015 - 2022	pCi/L	0.43	20	Erosion of natural deposits.	ND	ND	ND - 2.71	ND
Radium 226	2006 - 2022	pCi/L	0.05	n/a	Erosion of natural deposits.	ND	ND	ND - 2.42	ND
<b>DISTRIBUTION SYSTEM</b>									
						<b>RANGE (LO - HI)</b>	<b>AVERAGE</b>		
Chlorine Residuals	2022	PPM	[4]	[4.0]	Drinking water disinfectant added for treatment.	0.05 - 2.4		1.57	
TTHMs [Total Trihalomethanes]	2022	PPB	n/a	80	Byproduct of drinking water disinfection.	4.7 - 41		32	
7 HAA5 [Sum of 5 Haloacetic Acids]	2022	PPB	n/a	60	Byproduct of drinking water disinfection.	ND - 26		20	
8 Fluoride (Treated - Distribution)	2022	PPM	1	2	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.	0.58 - 0.89		0.76	
<b>MICROBIOLOGICAL CONTAMINANTS</b>									
<b>LEVEL FOUND</b>									
9 Total Coliform Bacteria	2022	% of Positive Samples	(0)	> 5% of Monthly Samples are Positive	Naturally present in the environment.			0.81%	
			n/a	TT = 1 NTU				0.117 NTU	
			n/a	TT = 95% of Samples ≤ 0.3 NTU					
10 Turbidity	2022	NTU	n/a	≤ 0.3 NTU	Soil Runoff			100%	

**NOTES:**

- The Central and South Service Area (CSA/SSA) is a blend of groundwater from the Laguna/ Vineyard/ Country Creek Estates/ Grantline 99 water system and surface water from the Vineyard Surface Water Treatment Plant (VSWTP).
- The State Water Resources Control Board Division of Drinking Water (SWRCB DDW) allows Sacramento County Water Agency (SCWA) 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.
- Surface Water is from SCWA's VSWTP which provided approximately 37% of the water distributed to customers in the CSA/SSA in 2022. SCWA received none of its 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) 264-5011.
- Total Trihalomethanes are the sum of Four Regulated THMs, i.e., Chloroform, Bromodichloromethane, Dibromochloromethane, and Bromoform.
- 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.
- The SWRCB allows the measurement of gross alpha radiation as a surrogate for Uranium.
- Haloacetic Acids are the Sum of Five Regulated HAAs, i.e., Monochloroacetic Acid, Monobromoacetic Acid, Dichloroacetic Acid, Dibromoacetic Acid, and Trichloroacetic Acid.
- The CSA/SSA water system's facilities are all fluoridated to reduce tooth decay in children. Studies show that water fluoridation reduces tooth decay by 20 to 40 percent. The SWRCB advised SCWA to implement the Center for Disease Control & Prevention's (CDC's) recommended optimal fluoride content of 0.7 mg/L and control range of 0.6 mg/L – 1.2 mg/L. Information about fluoridation, oral health and current issues is available from [http://waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/Fluoridation.html](http://waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html).
- On Systems that collect more than 40 samples per month, the Total Coliform Bacteria MCL is 5% of the samples collected in any one month 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 2022, all samples taken per the GWR returned negative (absent) for E. coli.
- Turbidity is a measure of the cloudiness of the water. 0.117 NTU is the highest individual measurement in 2022. 100% of the monthly samples 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.

### SECONDARY STANDARDS - Aesthetic 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		GROUNDWATER	
						RANGE (LO-HI)	WEIGHTED AVERAGE	RANGE (LO-HI)	WEIGHTED AVERAGE
11 Iron	2020 - 2022	PPB	n/a	300	Leaching from natural deposits; Industrial wastes	ND	ND	ND - 1200	ND
Manganese	2020 - 2022	PPB	n/a	50	Leaching from natural deposits.	ND	ND	ND - 31	ND
Odor-Threshold	2020 - 2022	Units	n/a	3	Naturally-occurring organic materials.	1.5 - 2	1.75	ND - 2	ND
Turbidity	2020 - 2022	Units	n/a	5	Soil runoff.	0.03 - 0.12	0.05	ND - 0.38	0.13
Total Dissolved Solids	2020 - 2022	PPM	n/a	1000	Runoff/leaching from natural deposits.	71 - 87	79	170 - 710	258
Specific Conductance (E.C.)	2020 - 2022	umhos/cm	n/a	1600	Substances that form ions when in water; seawater influence.	56 - 110	83	200 - 1200	360.4
Chloride	2020 - 2022	PPM	n/a	500	Runoff/leaching from natural deposits; seawater influence.	3.3 - 3.6	3.5	5 - 270	40.5
Sulfate	2020 - 2022	PPM	n/a	500	Runoff/leaching from natural deposits; industrial wastes.	3 - 3.1	3.05	ND - 13	1.8
<b>OTHER CONSTITUENTS ANALYZED</b>									
pH	2020 - 2022	Units	n/a	MO		7.7 - 8	7.8	7.6 - 8.2	7.9
12 Total Hardness (as CaCO3)	2020 - 2022	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	41 - 51	46	20 - 330	106
13 Total Hardness (as CaCO3)	2020 - 2022	Grains	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	2.4 - 3	2.7	1 - 19	6.2
Total Alkalinity (as CaCO3)	2020 - 2022	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	43 - 70	58	91 - 230	120
Bicarbonate (as HCO3)	2020 - 2022	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	43 - 77	61	110 - 280	145
Sodium	2020 - 2022	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	5.2 - 8.7	7.0	16 - 120	35
Calcium	2020 - 2022	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	9.2 - 11	10	4.4 - 73	22
Magnesium	2020 - 2022	PPM	n/a	MO	Due to chemicals naturally occurring in the soil below the earth's surface.	4.3 - 6.1	5	2 - 34	12

### PER- & POLYFLUOROALKYL SUBSTANCES (PFAS) - See # 14a.

The State Water Resources Control Board Division of Drinking Water (SWRCB DDW) established new drinking water guidelines for water agencies to follow in detecting and reporting the presence of perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), perfluorohexane sulfonic acid (PFHxS), and perfluorobutane sulfonic acid (PFBS) – four members of a large family of chemicals known as per- and polyfluoroalkyl substances (PFAS). Until PFOA and PFOS were phased out in the 2000s due to health concerns, these chemicals were widely used in grease and stain resistant coatings for consumer products and firefighting foams. Drinking water containing PFAS has become an increasing concern due to the persistence of these chemicals in the environment and their tendency to accumulate in groundwater. Long-term exposure to PFAS over certain levels is associated with adverse health effects that include cancer and developmental harm. SWRCB DDW has identified analytical methods capable of detecting the following eighteen (18) perfluorinated compounds in drinking water:

<b>PERFLUOROBUTANE SULFONIC ACID (PFBS)</b>	N-ETHYL PERFLUOROCTANESULFONAMIDOACETIC ACID (NEFOSAA)	PERFLUOROTRIDECAANOIC ACID (PFTrDA)
<b>PERFLUOROHEPTANOIC ACID (PFHpA)</b>	N-METHYL PERFLUOROCTANESULFONAMIDOACETIC ACID (NMeFOSAA)	PERFLUOROUNDRECAANOIC ACID (PFUnA)
<b>PERFLUOROHEXANE SULFONIC ACID (PFHxS)</b>	PERFLUORODECAANOIC ACID (PFDA)	HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-DA)
<b>PERFLUORONONANOIC ACID (PFNA)</b>	PERFLUORODODECAANOIC ACID (PFDaA)	9-CHLOROHEXADECAFLUORO-3-OXANONE-1 SULFONIC ACID (9Cl-PF3ONS)
<b>PERFLUOROOCYLOXYL SULFONIC ACID (PFOS)</b>	PERFLUOROHEXANOIC ACID (PFHxA)	11-CHLOROICOSAFLUORO-3-OXAUNDECANE-1-SULFONIC ACID (11Cl-PF30UdS)
<b>PERFLUOROOCANOIC ACID (PFOA)</b>	PERFLUOROTETRADECAANOIC ACID (PFTA)	4,8-DIOXA-3H-PERFLUORONONANOIC ACID (ADONA)

CONSTITUENT	SAMPLE DATE	UNITS	Notification Level (#15)	Response Level (#16)	MAJOR SOURCES IN DRINKING WATER	GROUNDWATER	
						RANGE (LO - HI)	AVERAGE
Perfluorooctanoic Acid [PFOA]	2020 - 2022	PPT	5.1	10	Chemicals used in grease and stain resistant coatings for consumer products and firefighting foams.	ND - 7.5	6.3 (see 14a.)
Perfluorooctyl Sulfonate [PFOS]	2020 - 2022	PPT	6.5	40	Chemicals used in grease and stain resistant coatings for consumer products and firefighting foams.	ND - 7.2	6.3 (see 14a.)
Perfluorobutane sulfonic acid (PFBS)	2020 - 2022	PPT	500	5000	Chemicals used in grease and stain resistant coatings for consumer products and firefighting foams.	ND	ND (see 14b.)
Perfluorohexane sulfonic acid (PFHxS)	2020 - 2022	PPT	3	20	Chemicals used in grease and stain resistant coatings for consumer products and firefighting foams.	ND - 4.4	ND (see 14b.)

**NOTES:**

- On 04/20/2022, an iron monitoring sample taken at a Dwight Rd Water Treatment Plant (WTP) storage tank returned a result of 1200 PPB, exceeding the MCL of 300 PPB. SCWA believes this was caused by a sampling process issue as all samples for iron at the finished water taken during the same month returned Non-Detect. A follow-up sample taken two weeks later from the same tank returned Non-Detect. On 11/11/2022, SCWA received several complaints for yellow, dirty, or rusty water in the area around our Lakeside WTP. Operators responded to the complaint locations and were able to determine there was a malfunction in the water treatment process at the groundwater treatment plant. Iron, filtered from the raw groundwater treated at the facility, was leaking back into the storage tank and distribution system. Operators immediately shut down the water treatment plant to correct the malfunction as well as install a fail-safe mechanism to prevent future failures. Water samples for arsenic, iron and manganese were taken at locations surrounding the water treatment plant and sent to our lab for analysis. All results returned non-detect except for a reading of iron at 850 PPB at Gary Lawson Park. A resample at the park returned non-detect. The weighted average for iron in the SSA/ CSA water system is Non-Detect. The iron MCL was set to protect against unpleasant aesthetic effects (e.g., color, taste and odor) which may stain household fixtures (e.g., tubs and sinks).
- Hardness units are PPM. General guidelines for classification of water hardness are: 0 - 60 PPM as soft; 61 - 120 PPM as moderately hard; 121 - 180 PPM as hard; and greater than 180 PPM as very hard.
- Most commercial companies use "grain" units. Conversion: 17.1 PPM = 1 grain.
- Starting in the 2nd Quarter of 2019, SCWA (per SWRCB DDW direction) began PFAS monitoring at numerous wells in the CSA/SSA water system. On 02/06/2020, the SWRCB DDW established Notification Levels (NL) and Response Levels (RL) for PFOA & PFOS. On 03/05/2021 & 10/31/2022, the board established NLs and RLs for PFBS & PFHxS, respectively. SCWA concentrated testing where detectable amounts of PFAS were found in groundwater wells. The results listed pertain to monitoring three (3) wells in the CSA/ SSA water system through December 31, 2022. For more information on PFAS, PFOA and PFOS, please visit the SWRCB DDW's resource page: [https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/PFOA\\_PFOS.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/PFOA_PFOS.html)
- The averages for PFOA & PFOS (listed as 6.3 PPT for PFOA & PFOS) represent the highest running annual average among the three well locations, not an average for all wells in the system.
- The averages for PFBS & PFHxS represent the results from monitoring the well sites which were tested for PFAS in the CSA/ SSA water system (13 groundwater wells).
- The guidelines adopted by the SWRCB DDW set Notification Levels (NL) of 5.1 parts per trillion (PPT) for PFOA, 6.5 PPT for PFOS, 500 PPT for PFBS and 3 PPT for PFHxS. If the NL is exceeded, the water agency (SCWA) is required to report the results to the Sacramento County Board of Supervisors, the SWRCB DDW, and the customer.
- The SWRCB DDW established a Response Level (RL) of 10 PPT for PFOA, 40 PPT for PFOS, 5000 PPT for PFBS and 20 PPT for PFHxS. If the RL is exceeded in drinking water provided to consumers, the SWRCB DDW recommends that the water agency consider taking the water source out of service, provide treatment if that option is available, or provide public notice of the exceedance level.

# SACRAMENTO COUNTY WATER AGENCY

## 2022 WATER QUALITY REPORT - CENTRAL & SOUTH SERVICE AREA (CSA & SSA) (See Note #1)

### LEAD & COPPER (See Note 17a. & 17b.)

CONTAMINANT	SAMPLE DATE	UNITS	PHG or (MCLG)	ACTION LEVEL	MAJOR SOURCES IN DRINKING WATER	NUMBER OF SAMPLES	90TH % LEVEL DETECTED	NUMBER EXCEEDING AL
Lead	2022	PPB	(0.2)	15	Internal corrosion of household water plumbing systems; discharges from industrial manufactures; erosion of natural deposits.	50	ND	0
Copper	2022	PPM	(0.3)	1.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	50	0.15	0

  

LEAD Sampling in schools	SAMPLE DATE	UNITS	PHG or (MCLG)	ACTION LEVEL	MAJOR SOURCES IN DRINKING WATER	NUMBER OF SCHOOLS	RANGE DETECTED	NUMBER EXCEEDING AL
Lead (Elk Grove Unified School District)	2017	PPB	(0.2)	15	Internal corrosion of household water plumbing systems; discharges from industrial manufactures; erosion of natural deposits.	29	ND - 9.8	0

**NOTES:**  
 17a. The levels for Lead and Copper concentrations were obtained from the 90th percentile of fifty-three (53) tap water samples taken throughout the CSA/SSA water system. The MCLs for lead and copper are set at "Action Levels" (AL). None of the samples taken in the CSA/ SSA exceeded the Action Level for Copper; however, one sample for Lead exceeded the AL with a result of 16 PPB (µg/L). Please refer to the educational information on Lead in drinking water.  
 17b. From January 18, 2017 to November 1, 2019, the SWRCB required SCWA to provide one-time assistance with lead sampling to all public, private and/ or charter schools that submit a written request and are served water by SCWA. Thirty (30) schools served by the CSA/SSA water system requested lead sampling at their campuses.

LEGEND:				
AL...Regulatory Action Level	NA...Not Analyzed	NR...Not Required	PPB...Parts per Billion (ug/l)	TOC...Total Organic Carbon
MFL...Million Fibers Per Liter	n/a...Not Applicable	NTU...Nephelometric Turbidity Units	PPM...Parts per Million (mg/l)	TT...Treatment Technique
MO...Monitored Only	ND...Non-Detected	PDWS...Primary Drinking Water Standard	PPT...Parts per Trillion (ng/l)	WTP...Water Treatment Plant
MPN...Most Probable Number	NL...Notification Level	pCi/L...Pico Curies per Liter	RL...Response Level	

PARTS PER MILLION (PPM) OR MILLIGRAMS PER LITER (mg/L)			
Parts per million (PPM) and milligrams per liter (mg/L) are units of measurement to determine the amount of a chemical in water. If we thought of each "part" or "milligram" as a second in a period of time, the following time frames would be an appropriate or accurate comparison:			
1 milligram per liter (mg/L)	or	1 part per million (PPM)	=1 second in 11.5 days
1 microgram per liter (µg/L)	or	1 part per billion (PPB)	=1 second in nearly 32 years
1 nanogram per liter (ng/L)	or	1 part per trillion (PPT)	=1 second in nearly 32,000 years
1 picogram per liter (pg/L)	or	1 part per quadrillion (PPQ)	=1 second in nearly 32,000,000 years

**In 2022, SCWA blended its water for the CSA/SSA from two (2) sources. Approximately 37% surface water from its Vineyard Surface Water Treatment Plant and approximately 63% groundwater from its thirty-four (34) groundwater wells and nine (9) water treatment plants (WTPs). For more detailed information regarding this report or SCWA water quality, call Aaron Wyley @ (916) 875-5815.**

### FEDERAL UNREGULATED CONTAMINANT MONITORING RULE (UCMR 4) - Established by USEPA (See Note 18)

CHEMICAL	SAMPLE DATE	UNITS	Minimum Reporting Level	MAJOR SOURCES IN DRINKING WATER	DISTRIBUTION SYSTEM		SURFACE WATER		GROUNDWATER	
					RANGE	AVERAGE	RANGE	WTD. AVG.	RANGE	WTD. AVG.
Manganese	2018 - 2019	PPB	0.4	Leaching from natural deposits	NA	NA	ND - 1.2	0.3	ND - 25	6.25
Germanium	2018 - 2019	PPB	0.3		NA	NA	ND	ND	ND - 1.9	0.84
Bromide	2018 - 2019	PPB	n/a		NA	NA	ND - 25	5	NA	NA
19. Total Organic Carbon	2018 - 2019	PPM	n/a	Various natural and manmade sources	NA	NA	1.4 - 2.8	1.96	NA	NA
HAA5	2018 - 2019	PPB	n/a	Byproduct of drinking water disinfection	0.24 - 22	11.6	NA	NA	NA	NA
HAA6Br	2018 - 2019	PPB	n/a	Byproduct of drinking water disinfection	ND - 4.95	2.73	NA	NA	NA	NA
HAA9	2018 - 2019	PPB	n/a	Byproduct of drinking water disinfection	0.24 - 25.45	14.06	NA	NA	NA	NA

Cyanotoxins (see Note 20)		Additional Chemical Contaminants			
Total Microcystin	Microcystin-RR	Germanium	Tebuconazole	Oxyfluorfen	o-toluidine
Microcystin-LA	Microcystin-YR	Manganese	Dimethipin	1-butanol	quinoline
Microcystin-LF	Nodularin	Alpha-hexachlorocyclohexane	Total Permethrin (cis- & trans-)	2-propen-1-ol	HAA5
Microcystin-LR	Anatoxin-a	Profenofos	Ethoprop	2-methoxyethanol	HAA6Br (see Note 21)
Microcystin-LY	Cylindrospermopsin	Chlorpyrifos	Tribufos	butylated hydroxyanisole	HAA9

**NOTES:**  
 18. The Fourth Unregulated Contaminants Monitoring Rule (UCMR 4 / 2018 - 2019 Monitoring) with Notification Levels help determine where certain contaminants occur and whether they need to be regulated.  
 19. According to UCMR4, the two indicators (TOC & Bromide) need to be monitored at the source water intake (raw water) for surface water (i.e., the Sacramento River).  
 20. SCWA is required by the fourth Federal UCMR to monitor for ten (10) **cyanotoxins** at the entry point to the distribution system during a 4-consecutive month period, according to the list of constituents above. SCWA was also required to monitor for twenty (20) **additional chemical contaminants** at the entry point to the distribution system and indicators (TOC & Bromide) during a 12-month period. The Haloacetic Acids (HAAs) need to be monitored in the distribution system. For more information about the Federal UCMR4, go online at <https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule>.  
 21. The HAAs (HAA5, HAA6Br & HAA9) each comprise of a different combination of the Haloacetic Acids Chlorodibromoacetic acid, Dichloroacetic acid, Monochloroacetic acid, Trichloroacetic acid, Bromochloroacetic acid, Dibromoacetic acid, Monobromoacetic acid, Tribromoacetic acid, Bromodichloroacetic acid and Dibromochloroacetic acid.

**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, MRDLs and treatment techniques (TTs) for contaminants that affect health, along with their monitoring and reporting 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 (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.

**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.

### 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:**  
 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 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 do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. 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/lead>.

**Cryptosporidium:**  
 Cryptosporidium is a microbial pathogen found in surface water (e.g., rivers, lakes and streams) throughout the U.S. SCWA's monitoring indicates the presence of these organisms in our source water, which is the Sacramento River. Between May 2015 and April 2017 SCWA took monthly samples for Giardia and Cryptosporidium, as well as turbidity and E. coli. Of the 24 samples taken, only one detected the presence of these organisms. The results ranged from non-detect (ND) to 0.182 Oocysts per liter. The maximum average is below the threshold of 0.075 oocysts per liter. SCWA's surface water is 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. 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, immune-compromised people, infants and small children and the elderly are at greater risk of developing life-threatening illness. We encourage immune-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.

### SOURCE WATER ASSESSMENT

To help protect the quality of existing and future groundwater supplies, the Drinking Water Source Assessment and Protection (DWSAP) program calls for examining the vulnerability of drinking water sources to potential contamination. The Water Agency completed its latest comprehensive report in May 2019. The Water Agency's report identified the following potential contamination results:

**Arden Park Vista & Northgate:**  
 Most vulnerable to commercial types of activities such as the dry cleaning business, gas stations, a sewer collection system and a leaking underground storage tank, electronic manufacturers and photo processors.

**Central & South Service Area (CSA & SSA)**  
 Most vulnerable to activities including automobile-gas stations; boat services/ repair/ refinishing; chemical/ petroleum pipelines; dry cleaners; fleet/ truck/ bus terminal; grazing; historic waste dumps/ landfills; leaking underground storage tanks; other animal operations; pesticides/ fertilizer/ petroleum storage transfer areas; plastics/ synthetics producers; research laboratory; wells-agricultural/ irrigation types; wells-oil, gas, and geothermal types; wood preserving/ treating and sewer collection systems

**Hood, East Walnut Grove and Delta Estates:**  
 Most vulnerable to irrigated crops and septic systems.

**North Service Area (NSA):**  
 Most vulnerable to commercial types of activities such as grazing, known contaminant plumes, low-density septic systems, sewer collection systems and wells-agricultural irrigation types