SACRAMENTO COUNTY WATER AGENCY

2019 WATER QUALITY REPORT - HOOD & EAST WALNUT GROVE/ DELTA ESTATES

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

	CONSTITUENT	SAMPLE DATE (see # 1)	UNITS	PHG or (MCLG) or [MRDLG]	MCL OR [MRDL]	MAJOR SOURCES IN DRINKING WATER	HOOD RANGE (LO-HI)	HOOD WEIGHTED AVERAGE	EAST WALNUT GROVE RANGE (LO-HI)	EAST WALNUT GROVE WEIGHTED AVERAGE
INORGANIC CONTAMINANTS										
2	Arsenic	2017 - 2019	PPB	0.004	10	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.	ND	ND	3.8 - 8.5	6.2
	Fluoride (Natural Source)	2018 - 2019	PPM	1	2	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.	ND	ND	0.13 - 0.15	0.14
DISTRIBUTION SYSTEM										
	Chlorine Residuals	2019	PPM	[4]	[4.0]	Drinking water disinfectant added for treatment.	0.69 - 1.6	1.17	0.31 - 1.5	0.94
3	Total Trihalomethanes	2019	PPB	n/a	80	Byproduct of drinking water disinfection.	63 - **85**	72.5	27 - 44	35.5
4	Haloacetic Acids	2019	PPB	n/a	60	Byproduct of drinking water disinfection.	12 - 15	13.3	7 - 12	9.1
5	Fluoride (Treatment - Distribution)	2019	PPM	1	2	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.	0.68 - 1.0	0.86	0.64 - 0.87	0.74
MICROBIOLOGICAL CONTAMINANTS							**LEVEL FOUND**		**LEVEL FOUND**	
	Total Coliform Bacteria	2019	# of Positive Samples	(0)	>1	Naturally present in the envirionment.	0		0	

NOTES:

1. 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.
2. SCWA closely monitors the Arsenic levels in the East Walnut Grove (EWG) water system. Monthly samples are collected to test for Arsenic at the Grove Street Well (W-108), the well filters and a point in the distribution system.
3. Total Trihalomethanes are the sum of Four Regulated THMs, i.e., Chloroform, Bromodichloromethane, Dibromochloromethane & Bromoform. On May 9, 2019, a quarterly sample taken for Total Trihalomethanes in the Hood distribution system returned with a level of 85 PPB (in exceedance of the State MCL of 80 PPB). Even with the high sample result, the Running Annual Average for TTHMs at the time was at 59.8 PPB (below the MCL). SCWA cleaned the tank aerators and began to lower the dosage of disinfectant in the system to bring down the amount of disinfection by-product in the water. The TTHM samples taken later were below the MCL (66 PPB & 76 PPB). Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.
4. Haloacetic Acids are the Sum of Five Regulated HAAs, i.e., Monochloroacetic Acid, Monobromoacetic Acid, Dichloroacetic Acid, Dibromoacetic Acid, and Trichloroacetic Acid.
5. The **Hood** and **East Walnut Grove** water systems are fluoridated to reduce tooth decay in children. Studies show that water fluoridation reduces tooth decay by 20 to 40 percent. The SWRCB DDW advised SCWA to implement the 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://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml**

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	HOOD RANGE (LO-HI)	HOOD WEIGHTED AVERAGE	EAST WALNUT GROVE RANGE (LO-HI)	EAST WALNUT GROVE WEIGHTED AVERAGE
	Color	2014 - 2018	Units	n/a	15	Naturally-occurring organic materials.	ND - 5	3	ND - 5	3
6	Manganese	2017 - 2019	PPB	n/a	50	Leaching from natural deposits.	**210 - 220**	**218**	39	39
	Odor-Threshold	2014 - 2018	Units	n/a	3	Naturally-occurring organic materials.	2 - 2.5	2.25	1.5 - 2	1.8
	Turbidity	2014 - 2018	Units	n/a	5	Soil runoff.	ND - 0.22	0.11	ND - 0.18	ND
	Zinc	2014 - 2018	PPM	n/a	5	Runoff / leaching from natural deposits; industrial wastes	ND - 0.071	ND	ND	ND
	Total Dissolved Solids	2014 - 2018	PPM	n/a	1000	Runoff/leaching from natural deposits.	580 - 630	605	430 - 450	440
	Specific Conductance (E.C.)	2014 - 2018	umhos/cm	n/a	1600	Substances that form ions when in water; seawater influence.	1000 - 1100	1050	740 - 770	755
	Chloride	2014 - 2018	PPM	n/a	500	Runoff/leaching from natural deposits; seawater influence.	210 - 220	215	120 - 130	125
OTHER CONSTITUENTS ANALYZED										
	pH	2014 - 2018	Units	n/a	MO		8 - 8.1	8.05	8.3 - 8.4	8.4
7	Total Hardness (as CaCO3)	2014 - 2018	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	250 - 280	265	47	47
8	Total Hardness (as CaCO3)	2014 - 2018	Grains	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	14.6 - 16.4	15.5	2.75	2.75
	Total Alkalinity (as CaCO3)	2014 - 2018	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	200 - 210	205	200	200
	Bicarbonate (as HCO3)	2014 - 2018	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	240 - 250	245	240	240
	Carbonate (as C03)	2014 - 2018	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	ND	ND	2.2 - 5.3	3.8
	Sodium	2014 - 2018	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	100 - 110	105	150	150
	Calcium	2014 - 2018	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	69 - 77	73	11	11
	Magnesium	2014 - 2018	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	19 - 22	21	4.6 - 4.8	4.7

LEAD & COPPER (see #9)

	CONTAMINANT	SAMPLE DATE	UNITS	PHG or (MCLG)	ACTION LEVEL	MAJOR SOURCES IN DRINKING WATER	NUMBER OF SAMPLES	90TH % LEVEL DETECTED	NUMBER EXCEEDING AL
HOOD	Lead	2019	PPB	(0.2)	15	Internal corrosion of household water plumbing systems; discharges from industrial manufactures; erosion of natural deposits.	6	ND	0
	Copper	2019	PPM	(0.3)	1.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	6	0.093	0
EWG	Lead	2019	PPB	(0.2)	15	Internal corrosion of household water plumbing systems; discharges from industrial manufactures; erosion of natural deposits.	16	8.7	0
	Copper	2019	PPM	(0.3)	1.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	16	0.73	0

NOTES:

6. **Manganese** exceeded the MCL of 50 PPB in the Hood water system in 2019 (see the quarterly results below in "Exceedence." 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. SCWA is on track to complete construction of the Hood Water Treatment Plant in August of 2020. The water treatment plant will filter the iron and manganese out of the groundwater served to the customers.
7. 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**.
8. Most commercial companies use "grain" units. Conversion: 17.1 PPM = 1 grain.
9. The levels for Lead & Copper concentrations were obtained from the 90th percentile sampling of six (6) homes at the tap for Hood and sixteen (16) for EWG. The MCLs for lead and copper are set at "Action Levels" (AL). None of the samples taken in Hood or EWG exceeded the Action Level for Copper or Lead. Please refer to the educational information on Lead in drinking water.

EXCEEDENCE:

Every 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	PHG or (MCLG)	MCL or [MRDL]	QUALITY EFFECTS / SOURCE OF CONTAMINANT:	RESULT:	LOCATION:
Manganese	2/7/2019	PPB	n/a	50	Leaching from natural deposits.	210	Third Street Well (W-19)
Manganese	5/9/2019	PPB	n/a	50	Leaching from natural deposits.	220	Third Street Well (W-19)
Manganese	8/5/2019	PPB	n/a	50	Leaching from natural deposits.	220	Third Street Well (W-19)
Manganese	11/7/2019	PPB	n/a	50	Leaching from natural deposits.	220	Third Street Well (W-19)

PER- & POLYFLUOROALKYL SUBSTANCES (PFAS) - See # 10

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) and perfluorooctanesulfonic acid (PFOS) – two 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 PFOA and PFOS 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 PFOA and PFOS 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:

PERFLUOROBUTANE SULFONIC ACID (PFBS)	N-ETHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID (NEtFOSAA)	PERFLUOROTRIDECANOIC ACID (PFTrDA)
PERFLUOROHEPTANOIC ACID (PFHpA)	N-METHYL PERFLUOROOCTANESULFONAMIDOACETIC ACID (NMeFOSAA)	PERFLUOROUNDECANOIC ACID (PFUnA)
PERFLUOROHEXANE SULFONIC ACID (PFHxS)	PERFLUORODECANOIC ACID (PFDA)	HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-DA)
PERFLUORONONANOIC ACID (PFNA)	PERFLUORODODECANOIC ACID (PFDoA)	9-CHLOROHEXADECAFLUORO-3-OXANONE-1 SULFONIC ACID (9Cl-PF3ONS)
PERFLUOROOCTYL SULFONIC ACID (PFOS)	PERFLUOROHEXANOIC ACID (PFHxA)	11-CHLOROEICOSAFLUORO-3-OXAUNDECANE-1-SULFONIC ACID (11Cl-PF3OUdS)
PERFLUOROOCTANOIC ACID (PFOA)	PERFLUOROTETRADECANOIC ACID (PFTA)	4,8-DIOXA-3H-PERFLUORONONANOIC ACID (ADONA)

NOTES:

10. In the 2nd Quarter of 2019, the SWRCB DDW directed SCWA to complete four quarters of sampling in the Arden Park Vista (APV) and Central & South Service Area (CSA/SSA) water systems. SCWA tested for PFAS at groundwater wells near locations where the chemicals are believed to be especially prevalent. After completing the required monitoring for PFAS, SCWA began a thorough testing for these chemicals at water sources located in EWG and Hood in 2020. The additional analysis results returned Non-Detect. 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**

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

100% of the water for the East Walnut grove and Hood community water systems comes from groundwater wells. For more detailed information regarding SCWA water quality, please call Aaron Wyley @ (916) 875-5815.

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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		

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: 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 Nitrate, 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, infants and young children; as they are typically more vulnerable to lead in drinking water than the general population. 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 for materials used in plumbing components. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about lead in your water, you may wish to have your water tested. 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. Additional information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the USEPA Safe Drinking Water Hotline (1-800-426-4791) or at http://www.epa.gov/lead.