SACRAMENTO COUNTY WATER AGENCY

2022 WATER QUALITY REPORT - ARDEN PARK VISTA, NORTHGATE & SOUTHWEST TRACT

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

	CONSTITUENT	SAMPLE DATE: (See Note #1)	UNITS	PHG or (MCLG) or [MRDLG]	MCL or [MRDL]	MAJOR SOURCES IN DRINKING WATER	ARDEN PARK VISTA RANGE (LO-HI)	ARDEN PARK VISTA WEIGHTED AVERAGE	NORTHGATE RANGE (LO-HI)	NORTHGATE WEIGHTED AVERAGE	SWT (SEE #2) RANGE (LO-HI)	SWT (SEE #2) WEIGHTED AVERAGE
INORGANIC CONTAMINANTS												
	Aluminum	2017 - 2022	PPM	0.6	1	Erosion of natural deposits; residue from some surface water treatment processes	ND	ND	ND	ND	ND - 0.09	ND
	Arsenic	2017 - 2022	PPB	0.004	10	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.	ND - 3.7	ND	3.7 - 5.8	4.6	2 - 4	3.1
	Barium	2017 - 2022	PPM	2	1	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits.	ND	ND	ND - 0.17	0.13	ND - 0.2	0.1
	Chromium (Total Cr)	2017 - 2022	PPB	(100)	50	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.	ND	ND	ND - 11	ND	ND	ND
	Fluoride (Natural Source)	2017 - 2022	PPM	1	2	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.	ND	ND	0.14 - 0.18	0.16	ND	ND
	Nitrate (as N)	2022	PPM	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.	ND - 4.9	1.8	0.49 - 5.1	1.5	1.5 - 6.9	5.5
REGULATED ORGANIC CHEMICALS												
	Tetrachloroethylene (PCE)	2020 - 2022	PPB	0.06	5	Discharge from factories, dry cleaners and auto shops (metal degreaser).	ND	ND	ND	ND	ND - 1.9	0.6
	Trichloroethylene (TCE)	2020 - 2022	PPB	1.7	5	Discharge from metal degreasing sites and other factories.	ND	ND	ND	ND	ND - 0.9	ND
RADIOACTIVE CONTAMINANTS												
	Gross Alpha Activity	2014 - 2022	pCi/L	(0)	15	Erosion of natural deposits.	ND - 4.5	ND	ND - 3	ND	ND - 9.5	5.2
3	Uranium	2014 - 2022	pC/L	0.43	20	Erosion of natural deposits.	ND - 1.7	ND	ND - 3.5	ND	1.6 - 7.5	4.6
DISTRIBUTION SYSTEM												
	Chlorine Residuals	2022	PPM	[4]	[4.0]	Drinking water disinfectant added for treatment.	0.33 - 1.87	1.23	0.77 - 1.5	1.43	0.47 - 1.4	1.1
4	TTHMs [Total Trihalomethanes]	2022	PPB	n/a	80	Byproduct of drinking water disinfection.	ND - 2.4	0.6	ND - 1.2	0.4	4.4	4.4
5	HAA5 [Sum of 5 Haloacetic Acids]	2022	PPB	n/a	60	Byproduct of drinking water disinfection.	ND	ND	ND	ND	ND	ND
6	Fluoride (Treatment Related- Distribution)	2022	PPM	1	2	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.	0.62 - 0.85	0.72	NA	NA	ND - 1	0.7
MICROBIOLOGICAL CONTAMINANTS							**LEVEL FOUND**		**LEVEL FOUND**		**LEVEL FOUND**	
7	Total Coliform Bacteria	2022	# of Positive Samples	(0)	>1	Naturally present in the envirionment.	1		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. Southwest Tract (SWT) receives its water from Fruitridge Vista Water Company which changed its ownership to California American Water Company in March 2020. For questions regarding water quality on Southwest Tract, please call **California American Customer Service at 1-(888) 237-1333**.
3. The SWRCB DDW allows the measurement of gross alpha radiation as a surrogate for Uranium.
4. Total Trihalomethanes are the sum of Four Regulated TTHMs, i.e., Chloroform, Bromodichloromethane, Dibromochloromethane, and Bromoform.
5. Haloacetic Acids are the Sum of Five Regulated HAA5s, i.e., Monochloroacetic Acid, Monobromoacetic Acid, Dichloroacetic Acid, Dibromoacetic Acid, and Trichloroacetic Acid.
6. The Arden Park Vista (APV) water system's facilities 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://waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html** .
7. On Systems that collect less than 40 samples per month, the Total Coliform Bacteria MCL is no more than one (1) monthly sample 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.

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	ARDEN PARK VISTA RANGE (LO-HI)	ARDEN PARK VISTA WEIGHTED AVERAGE	NORTHGATE RANGE (LO-HI)	NORTHGATE WEIGHTED AVERAGE	SWT RANGE (LO-HI)	SWT WEIGHTED AVERAGE
Aluminum	2017 - 2022	PPB	n/a	200	Erosion of natural deposits; residue from some surface water treatment processes	ND	ND	ND	ND	ND - 89	ND
Copper	2017 - 2022	PPM	n/a	1	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	ND - 0.29	ND	ND	ND	ND	ND
Iron	2014 - 2021	PPB	n/a	300	Leaching from natural deposits; industrial wastes.	ND - 110	ND	ND - 100	ND	ND - 200	ND
Manganese	2014 - 2022	PPB	n/a	50	Leaching from natural deposits.	ND - 43	ND	ND	ND	ND	ND
Odor-Threshold	2014 - 2022	UNITS	n/a	3	Naturally-occurring organic materials.	ND - 1.3	ND	ND	ND	ND	ND
Turbidity	2014 - 2022	UNITS	n/a	5	Soil runoff.	ND - 1.3	0.2	ND - 0.46	0.21	ND - 4.4	0.7
Total Dissolved Solids	2014 - 2022	PPM	n/a	1000	Runoff/leaching from natural deposits.	110 - 320	209	180 - 450	291	75 - 500	315
Specific Conductance (E.C.)	2014 - 2022	umhos/cm	n/a	1600	Substances that form ions when in water; seawater influence.	87 - 480	276	280 - 730	521	100 - 740	456
Chloride	2014 - 2022	PPM	n/a	500	Runoff/leaching from natural deposits; seawater influence.	1.7 - 23	10	18 - 65	37	5.4 - 56.1	29.1
Sulfate	2014 - 2022	PPM	n/a	500	Runoff/leaching from natural deposits; industrial wastes.	2.3 - 22	10.7	3.9 - 27	15.9	5.1 - 39.1	20.3
OTHER CONSTITUENTS ANALYZED											
pH	2014 - 2022	UNITS	n/a	MO		7.2 - 8	7.7	7.9 - 8	8.0	7.4 - 8.2	7.8
8 Total Hardness (as CaCO3)	2014 - 2022	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	43 - 220	125	71 - 310	151	42 - 330	202
9 Total Hardness (as CaCO3)	2014 - 2022	GRAINS	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	2.5 - 12.9	7	4 - 18	9	2.5 - 19.3	12
Total Alkalinity (as CaCO3)	2014 - 2022	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	44 - 170	106	90 - 250	142	26 - 280	167
Bicarbonate (as HCO3)	2014 - 2021	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	53 - 200	130	110 - 300	172	NA	NA
Sodium	2014 - 2022	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	4.2 - 14	9.8	24 - 32	27	5.9 - 23.8	17
Calcium	2014 - 2022	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	7.3 - 45	25.9	14 - 58	30	13 - 78	50
Magnesium	2014 - 2022	PPM	n/a	MO	Due to chemicals naturally occuring in the soil below the earth's surface.	6.1 - 27	14	8.7 - 40	18.1	9 - 39	25

LEAD & COPPER (See Note 10)

	CONTAMINANT	SAMPLE DATE	UNITS	PHG or (MCLG)	ACTION LEVEL	MAJOR SOURCES IN DRINKING WATER	NUMBER OF SAMPLES	90TH % LEVEL DETECTED	NUMBER EXCEEDING AL
APV	Lead	2022	PPB	(0.2)	15	Internal corrosion of household water plumbing systems; discharges from industrial manufactures; erosion of natural deposits.	30	ND	0
	Copper	2022	PPM	(0.3)	1.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	30	0.29	0
NORTHGATE	Lead	2022	PPB	(0.2)	15	Internal corrosion of household water plumbing systems; discharges from industrial manufactures; erosion of natural deposits.	9	ND	0
	Copper	2022	PPM	(0.3)	1.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	9	0.16	0
SWT	Lead	2022	PPB	(0.2)	15	Internal corrosion of household water plumbing systems; discharges from industrial manufactures; erosion of natural deposits.	5	ND	0
	Copper	2022	PPM	(0.3)	1.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	5	0.041	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**
APV	Lead (San Juan Unified School District)	2018	PPB	(0.2)	15	Internal corrosion of household water plumbing systems; discharges from industrial manufactures; erosion of natural deposits.	3	ND - 5.3	0

UNREGULATED CONTAMINANT MONITORING RULE (UCMR 4) - Established by USEPA (See 11)

CONTAMINANT	SAMPLE DATE	UNITS	MCL (PHG)	Notification Level	MAJOR SOURCES IN DRINKING WATER	Arden Park Vista RANGE	Arden Park Vista WTD. AVG.	Northgate RANGE	Northgate WTD. AVG.	Southwest Tract RANGE	Southwest Tract WTD. AVG.
Manganese	2018 - 2022	PPB	50	500	Leaching from natural deposits.	ND - 43	ND	ND	ND	ND - 26	6.5
HAA5	2018 - 2022	PPB	60	n/a	Byproduct of drinking water disinfection.	ND	ND	ND	ND	ND - 30	20.8
HAA6Br	2018 - 2020	PPB	n/a	n/a	Byproduct of drinking water disinfection.	NR	NR	NR	NR	ND - 5.6	2.9
HAA9	2018 - 2020	PPB	n/a	n/a	Byproduct of drinking water disinfection.	NR	NR	NR	NR	ND - 34	23.2

NOTES:

8. 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**.
9. Most commercial companies use "grain" units. Conversion: 17.1 PPM = 1 grain.
10. The levels for Lead & Copper concentrations were obtained from the 90th percentile sampling of thirty (30) homes at the tap for Arden Park Vista (APV), nine (9) for Northgate (NOR) & five (5) for Southwest Tract (SWT). The MCLs for lead and copper are set at "Action Levels" (AL). None of the samples taken in APV, NOR or SWT exceeded the Action Level for Copper or Lead. Please refer to the educational information on Lead in drinking water.
11. Unregulated Contaminants Monitoring Rule (UCMR 4 / 2018 - 2020 Monitoring) with notification levels help to determine where certain contaminants occur and whether they need to be regulated. The APV and NOR water systems were not required to sample for the UCMR4. For more information on the levels of unregulated contaminants found in SWT's system, please call California American Customer Service at 1-(888) 237-1333.

PER- & POLYFLUOROALKYL SUBSTANCES (PFAS) - See # 12

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

CONTAMINANT	SAMPLE DATE	UNITS	Notification Level (#13)	Response Level (#14)	HEALTH EFFECTS LANGUAGE	Arden Park Vista RANGE	Arden Park Vista AVERAGE	Northgate RANGE	Northgate AVERAGE	Southwest Tract RANGE	Southwest Tract AVERAGE
Perfluorooctanoic Acid [PFOA]	2019 - 2022	PPT	5.1	10	Perfluorooctanoic acid exposures resulted in increased liver weight and cancer in laboratory animals.	ND	ND	ND - 9.3	ND	ND	ND
Perfluorooctane Sulfonic Acid [PFOS]	2019 - 2022	PPT	6.5	40	Perfluorooctane sulfonic acid exposures resulted in immune suppression and cancer in laboratory animals.	ND	ND	ND - 5.6	ND	ND	ND
Perfluorohexane Sulfonic Acid [PFHxS]	2019 - 2022	PPT	3.0	20	Perfluorohexane sulfonic acid exposures resulted in decreased total thyroid hormone in male rats.	ND	ND	ND - 7.5	ND	ND	ND
Perfluorobutane Sulfonic Acid (PFBS)	2019 - 2022	PPT	500	5000	Perfluorobutane sulfonic acid exposures resulted in decreased thyroid hormone in pregnant female mice.	ND	ND	ND - 3.4	ND	ND	ND

NOTES:

12. Starting in the 2nd Quarter of 2019, SCWA (per SWRCB DDW direction) began PFAS monitoring at numerous wells in the APV & NOR water systems. The results for PFAS monitoring in the APV system returned Non-Detect and SCWA concentrated testing where detectable amounts of PFAS were found in groundwater wells in NOR. The results listed pertain to monitoring of all wells in the APV & NOR 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
13. 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, 3 PPT for PFHxS & 500 PPT for PFBS. If the NL is exceeded, the water agency (SCWA) is required to report the results to the Sacramento County Board of Supervisors and to the SWRCB DDW. The water agency is also urged to report this information to the customer.
14. The SWRCB DDW established a Response Level (RL) of 10 PPT for PFOA, 40 PPT for PFOS, 20 PPT for PFHxS & 5000 PPT for PFBS. 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.

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 Arden Park Vista and Northgate water systems comes from groundwater wells. Southwest Tract water is supplied by Cal-Am Water. For more detailed information regarding SCWA water quality, please call Aaron Wyley @ (916) 875-5815.

SACRAMENTO COUNTY WATER AGENCY

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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	RL….Response Level	

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 Nitrate, Arsenic & Lead:

Nitrate:

Nitrate 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 a 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. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.

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.

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 vulnerabe 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