

2024 Annual Water Quality Report

	Unit Measurement	MCL/MRDL	PHG (MCLG)	Surface Water	Ground Water Range	Ground Water Average
Microbiological Contaminants						
Total Coliform Bacteria	% of tests positive	5%	(zero)	0.0%	N/D	N/D
Turbidity	NTU	TT	N/S	0.02	N/D-0.22	0.07
Radioactive Contaminants (2023)						
Gross Alpha Activity	pCi/L	15	0	N/D	N/D-1.83	0.89
Uranium	pCi/L	20	0.43	N/D	N/D -2.8	0.70
Inorganic Contaminants (SW 2024 - GW 2023)						
Aluminum	ppm	1	0.6	N/D	N/D	N/D
Antimony	ppb	6	1	N/D	N/D	N/D
Arsenic	ppb	10	0.004	N/D	N/D-2.5	0.625
Asbestos	7 MFL	7	7	N/D	N/D	N/D
Barium	ppm	1	2	N/D	N/D-.180	0.08
Beryllium	ppb	4	1	N/D	N/D	N/D
Cadmium	ppb	5	0.04	N/D	N/D	N/D
Chromium, Hexavalent	ppb	10	0.02	0.097	N/D-1.4	0.35
Chromium (Total)	ppb	50	N/A	N/D	N/D	N/D
Copper	ppm	1.3	0.3	N/D	N/D	N/D
Cyanide	ppb	150	150	N/D	N/D-6.9	1.73
Fluoride	ppm	2	1	N/D	N/D	N/D
Lead	ppb	15	0.2	N/D	N/D	N/D
Mercury (inorganic)	ppb	2	1.2	N/D	N/D	N/D
Nickel	ppb	100	12	N/D	N/D	N/D
Nitrate(as N)	ppm	10	10	0.24	N/D - 4.6	1.3
Nitrite(as N)	ppm	1	1	N/D	N/D	N/D
Perchlorate	ppb	6	1	N/D	N/D - 1.1	0.28
Selenium	ppb	50	30	N/D	N/D	N/D
Thallium	ppb	2	0.1	N/D	N/D	N/D
Volatile Organic Contaminants (2024)						
Benzene	ppb	1	0.15	N/D	N/D	N/D

Carbon tetrachloride	ppt	500	100	N/D	N/D	N/D
1,2-Dichlorobenzene[o-DCB]	ppb	600	600	N/D	N/D	N/D
1,4-Dichlorobenzene[p-DCB]	ppb	5	6	N/D	N/D	N/D
1,1-Dichloroethane	ppb	5	3	N/D	N/D	N/D
1,2-Dichloroethane	ppt	500	400	N/D	N/D	N/D
1,1-Dichloroethylene	ppb	6	10	N/D	N/D	N/D
cis-1,2-Dichloroethylene	ppb	6	130	N/D	N/D	N/D
trans-1,2-Dichloroethylene	ppb	10	50	N/D	N/D	N/D
Dichloromethane	ppb	5	4	N/D	N/D	N/D
1,2-Dichloropropane	ppb	5	0.5	N/D	N/D	N/D
1,3-Dichloropropene	ppt	500	200	N/D	N/D	N/D
Ethylbenzene	ppb	300	300	N/D	N/D	N/D
Methyl-tert-butyl ether	ppb	13	13	N/D	N/D	N/D
Styrene	ppb	100	0.5	N/D	N/D	N/D
1,1,2,2-Tetrachlorethane	ppb	1	0.1	N/D	N/D	N/D
Tetrachloroethene [PCE]	ppb	5	0.06	N/D	N/D - 4.1	2.3
1,2,4-Trichlorobenzene	ppb	5	5	N/D	N/D	N/D
1,1,1-Trichloroethane	ppb	200	1000	N/D	N/D	N/D
1,1,2-Trichloroethane	ppb	5	0.3	N/D	N/D	N/D
Trichloroethene [TCE]	ppb	5	1.7	N/D	N/D	N/D
Toluene	ppb	150	150	N/D	N/D	N/D
Trichlorofluoromethane	ppb	150	1300	N/D	N/D	N/D
1,1,2-Trichloro-1,2,2-trifluoroethane	ppm	1.2	4	N/D	N/D	N/D
Vinyl Chloride	ppt	500	50	N/D	N/D	N/D
Xylenes	ppm	1.75	1.8	N/D	N/D	N/D

Disinfection Byproducts (Distribution System) (2024)				Avg	Range	
TTHM [Total Trihalomethanes] (Avg) (Range)	ppb	80	N/S	16	9 - 30	
Haloacetic Acids (Avg) (Range)	ppb	60	N/S	9	5.6 -14	
Chlorine (Avg) (Range)	ppm	4 [MRDL]	4 [MRDL]	0.93	.55 - 1.28	
Total Organic Carbon (TOC)	ppm	TT	N/S	0.77	N/A	N/A

Secondary Drinking Water Standards (SW2024-GW2023)						
Aluminum	ppb	200	N/S	N/D	N/D	N/D

Color	units	15 units	N/S	5	N/D	N/D
Copper	ppm	1	N/S	N/D	N/D	N/D
Foaming Agents [MBAS]	ppb	500	N/S	N/D	N/D-0.093	0.023
Iron	ppb	300	N/S	N/D	N/D	N/D
Manganese	ppm	0.05	N/S	N/D	N/D - .85	0.021
Methyl-tert-butyl ether [MTBE]	ppb	5	N/S	N/D	N/D	N/D
Odor-Threshold	TON (units)	3	N/S	1.8	N/D	N/D
Silver	ppb	100	N/S	N/D	N/D	N/D
Thiobencarb	ppb	1	N/S	N/D	N/D	N/D
Turbidity	units	5 units	N/S	0.11	N/D-.22	0.10
Zinc	ppm	5	N/S	N/D	N/D	N/D
Total Dissolved Solids	ppm	1000	N/S	47	120-330	205
Specific Conductance	micromhos	1600	N/S	53	130-440	260
Chloride	ppm	500	N/S	1.9	2.5-25	9.6
Sulfate	ppm	500	N/S	1.8	3.5-16	8.3

Synthetic Organic Contaminants including Pesticides and Herbicides (SW2024-GW2023)

2,4-D	ppb	70	20	N/D	N/D	N/D
2,4,5-TP (Silvex)	ppb	50	3	N/D	N/D	N/D
Alachlor	ppb	2	4	N/D	N/D	N/D
Atrazine	ppb	1	0.15	N/D	N/D	N/D
Bentazon	ppb	18	200	N/D	N/D	N/D
Benzo(a)pyrene [PAH]	ppt	200	7	N/D	N/D	N/D
Carbofuran	ppb	18	0.7	N/D	N/D	N/D
Chlordane	ppt	100	30	N/D	N/D	N/D
Dalapon	ppb	200	790	N/D	N/D	N/D
Di(2-ethylhexyl) Adipate	ppb	400	200	N/D	N/D	N/D
Di(2-ethylhexyl) phthalate	ppb	4	12	N/D	N/D	N/D
Dibromochloropropane [DBCP]	ppt	200	3	N/D	N/D	N/D
Dinoseb	ppb	7	14	N/D	N/D	N/D
Dioxane [2,3,7,8-TCDD]	ppq	30	0.05	N/D	N/D	N/D
Diquat	ppb	20	6	N/D	N/D	N/D
Endothall	ppb	100	94	N/D	N/D	N/D
Endrin	ppb	2	0.3	N/D	N/D	N/D

Ethylene Dibromide [EDB]	ppt	50	10	N/D	N/D	N/D
Glyphosate	ppb	700	900	N/D	N/D	N/D
Heptachlor	ppt	10	8	N/D	N/D	N/D
Heptachlor Epoxide	ppt	10	6	N/D	N/D	N/D
Hexachlorobenzene	ppb	1	0.03	N/D	N/D	N/D
Hexachlorocyclopentadiene	ppb	50	2	N/D	N/D	N/D
Lindane	ppt	200	32	N/D	N/D	N/D
Methoxychlor	ppb	30	0.09	N/D	N/D	N/D
Molinate [Ordram]	ppb	20	1	N/D	N/D	N/D
Oxamyl [Vydate]	ppb	50	26	N/D	N/D	N/D
PCBs [Polychlorinated Biphenyls]	ppt	500	90	N/D	N/D	N/D
Pentachlorophenol	ppb	1	0.3	N/D	N/D	N/D
Picloram	ppb	500	166	N/D	N/D	N/D
Simazine	ppb	4	4	N/D	N/D	N/D
Thiobencarb	ppb	70	42	N/D	N/D	N/D
Toxaphene	ppb	3	0.03	N/D	N/D	N/D
1,2,3 - Trichloropropane	ppb	0.005	0.0007	N/D	N/D	N/D
Aldrin	ppb	N/S	N/S	N/D	N/D	N/D
Aldicarb	ppb	N/S	N/S	N/D	N/D	N/D
Aldicarb Sulfone	ppb	N/S	N/S	N/D	N/D	N/D
Aldicarb Sulfoxide	ppb	N/S	N/S	N/D	N/D	N/D
Bis(2-ethylhexyl) adipate	ppb	N/S	N/S	N/D	N/D	N/D
Bis(2-ethylhexyl) phthalate	ppb	N/S	N/S	N/D	N/D	N/D
Bromacil	ppb	N/S	N/S	N/D	N/D	N/D
Butachlor	ppb	N/S	N/S	N/D	N/D	N/D
Carbaryl	ppb	N/S	N/S	N/D	N/D	N/D
Diazinon	ppb	N/S	N/S	N/D	N/D	N/D
Dimethoate	ppb	N/S	N/S	N/D	N/D	N/D
Methomyl	ppb	N/S	N/S	N/D	N/D	N/D
Metolachlor	ppb	N/S	N/S	N/D	N/D	N/D
Metribuzin	ppb	N/S	N/S	N/D	N/D	N/D
Propachlor	ppb	N/S	N/S	N/D	N/D	N/D
3-Hydroxycarbofuran	ppb	N/S	N/S	N/D	N/D	N/D

Unregulated Constituents of Interest (SW2024-GW2023)

Sodium	ppm	N/S	N/S	2.3	6.0-17	10.1
Alkalinity	ppm	N/S	N/S	24	69-170	119
Calcium	ppm	N/S	N/S	5.2	10-45	25
Hardness	ppm	N/S	N/S	20	53-210	121
Magnesium	ppm	N/S	N/S	1.8	6.5-23	14
NDMA	ppt	N/S	N/S	N/D	N/D	N/D

Lead and Copper (2024)		AL	PHG	90th Percentile	Number of sites exceeding AL
Lead	ppb	15	0.2	N/D	0
Copper	ppm	1.3	0.3	0.092	0

Unregulated Contaminants - UCMR 5 (Sampled in 2024)		Minimum Reporting Level (µg/L)	Notification Level	SW	GW
Lithium	ppb	9	N/S	N/D	N/D
PFBS	ppb	0.003	0.5	N/D	N/D
PFHpA	ppb	0.003	N/S	N/D	N/D
PFHxS	ppb	0.003	0.0051	N/D	N/D
PFNA	ppb	0.004	N/S	N/D	N/D
PFOS	ppb	0.004	0.0065	N/D	N/D
PFOA	ppb	0.004	0.0051	N/D	N/D
PFDA	ppb	0.003	N/S	N/D	N/D
PFDaA	ppb	0.003	N/S	N/D	N/D
PFHxA	ppb	0.003	N/S	N/D	N/D
PFUnA	ppb	0.002	N/S	N/D	N/D
11CI-PF3OUdS	ppb	0.005	N/S	N/D	N/D
9CI-PF3ONS	ppb	0.002	N/S	N/D	N/D
ADONA	ppb	0.003	N/S	N/D	N/D
HFPO-DA	ppb	0.005	N/S	N/D	N/D
PFBA	ppb	0.005	N/S	N/D	N/D
6:2 FTS	ppb	0.005	N/S	N/D	N/D
4:2 FTS	ppb	0.003	N/S	N/D	N/D
8:2 FTS	ppb	0.005	N/S	N/D	N/D

PFMPA	ppb	0.004	N/S	N/D	N/D
PFPeA	ppb	0.003	N/S	N/D	N/D
PFMBA	ppb	0.003	N/S	N/D	N/D
PFEESA	ppb	0.003	N/S	N/D	N/D
NFDHA	ppb	0.02	N/S	N/D	N/D
PFPeS	ppb	0.004	N/S	N/D	N/D
PFHpS	ppb	0.003	N/S	N/D	N/D
PFTA	ppb	0.008	N/S	N/D	N/D
PFTTrDA	ppb	0.007	N/S	N/D	N/D
NEtFOSAA	ppb	0.005	N/S	N/D	N/D
NMeFOSAA	ppb	0.006	N/S	N/D	N/D

For more information, please visit <https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule>

1. Surface water samples collected in 2024.
2. Groundwater samples collected in 2023, except when indicated
3. Groundwater nitrates sampled quarterly.
4. Groundwater samples for NDMA, Pechlorate,
and VOC's are collected quarterly.

**For additional water quality data, contact:
Carmichael Water District at 916-483-2452**