

2014 Annual Water Quality Report

	Unit Measurement	MCL/MRDL	PHG (MCLG)	Surface Water Average	Ground Water Range	Ground Water Average
Microbiological Contaminants						
1 Total Coliform Bacteria	% of tests positive	5%	(zero)	0.0%	N/D	N/D
2 Turbidity	NTU	TT	N/S	0.023	N/D-.10	0.10
Radioactive Contaminants (2006 & 2014)						
3 Gross Beta Activity DLR=3.00	pCi/L	50	0	N/D	N/D	N/D
4 Strontium 90	pCi/L	8	0.35	N/D	N/D	N/D
5 Tritium	pCi/L	20,000	400	N/D	N/D	N/D
6 Gross Alpha Activity	pCi/L	15	0	N/D	<3.00	N/D
7 Radium 226 & 228 (total)	pCi/L	5	0	N/D	N/D	N/D
8 Uranium	pCi/L	20	0.43	N/D	3.9	0.98
Inorganic Contaminants						
9 Antimony	ppb	6	20	N/D	N/D	N/D
10 Arsenic	ppb	10	0.004	N/D	N/D - 2.1	0.7
11 Asbestos	7 MFL	7	7	N/D	N/D	N/D
12 Barium	ppm	1	2	N/D	N/D-0.078	0.057
13 Beryllium	ppb	4	1	N/D	N/D	N/D
14 Cadmium	ppb	5	0.04	N/D	N/D	N/D
15 Chromium (Total)	ppb	50	(100)	N/D	N/D	N/D
16 Chromium 6	ppb	10	0.02	N/D	.76-2.0	1.35
17 Copper	ppm	1.3	0.3	N/D	N/D	N/D
18 Cyanide	ppb	150	150	N/D	N/D	N/D
19 Fluoride	ppm	2	1	N/D	N/D - .19	0.05
20 Lead	ppb	15	0.2	N/D	N/D	N/D
21 Mercury (inorganic)	ppb	2	1.2	N/D	N/D	N/D
22 Nickel	ppb	100	12	N/D	N/D	N/D
23 Nitrate(as nitrite, NO3)	ppm	45	45	2.3	4.7-9.3	6.4
24 Nitrite(as nitrogen, N)	ppm	1	1	N/D	N/D	N/D
25 Perchlorate	ppb	6	6	N/D	N/D	N/D
26 Selenium	ppb	50	(50)	N/D	N/D	N/D
27 Thallium	ppb	2	0.1	N/D	N/D	N/D
Volatile Organic Contaminants						
28 Benzene	ppb	1	0.15	N/D	N/D	N/D
29 Carbon tetrachloride	ppt	500	100	N/D	N/D	N/D
30 1,2-Dichlorobenzene[o-DCB]	ppb	600	600	N/D	N/D	N/D
31 1,4-Dichlorobenzene[p-DCB]	ppb	5	6	N/D	N/D	N/D
32 1,1-Dichloroethane	ppb	5	3	N/D	N/D	N/D
33 1,2-Dichloroethane	ppt	500	400	N/D	N/D	N/D
34 1,1-Dichloroethylene	ppb	6	10	N/D	N/D	N/D
35 cis-1,2-Dichloroethylene	ppb	6	100	N/D	N/D	N/D
36 trans-1,2-Dichloroethylene	ppb	10	60	N/D	N/D	N/D
37 Dichloromethane	ppb	5	4	N/D	N/D	N/D
38 1,2-Dichloropropane	ppb	5	0.5	N/D	N/D	N/D
39 Dichloropropane	ppt	500	200	N/D	N/D	N/D
40 Ethylbenzene	ppb	300	300	N/D	N/D	N/D
41 Methyl-tert-butyl ether	ppb	13	13	N/D	N/D	N/D
42 Monochlorobenzene	ppb	70	200	N/D	N/D	N/D
43 Styrene	ppb	100	0.5	N/D	N/D	N/D
44 1,1,2,2-Tetrachlorethane	ppb	1	0.1	N/D	N/D	N/D
45 Tetrachloroethylene[PCE]	ppb	5	0.06	N/D	N/D-3.7	1.6
46 1,2,4-Trichlorobenzene	ppb	5	5	N/D	N/D	N/D
47 1,1,1-Trichloroethane	ppb	200	1000	N/D	N/D	N/D
48 1,1,2-Trichloroethane	ppb	5	0.3	N/D	N/D	N/D
49 Trichloroethylene[TCE]	ppb	5	1.7	N/D	N/D	N/D
50 Toluene	ppb	150	150	N/D	N/D	N/D
51 Trichlorofluoromethane	ppb	150	700	N/D	N/D	N/D
52 1,1,2-Trichloro1,2,2-trifluoroethane	ppb	1.2	4	N/D	N/D	N/D
53 Vinyl Chloride	ppt	500	50	N/D	N/D	N/D
54 Xylenes	ppm	1.75	1.8	N/D	N/D	N/D
Disinfection Byproducts (Distribution System)						
55 TTHM [Total Trihalomethanes] (Range)	ppb	80	N/S		ND - 35.0	
56 Haloacetic Acids (Range)	ppb	60	N/S		ND - 11.0	
57 Chlorine (Range)	ppm	4 [MRDL]	4 [MRDL]		.4 - 1.03	

58 Total Organic Carbon (TOC)	ppm	TT	N/S	0.61	N/A	N/A
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Secondary Drinking Water Standards

59 Aluminum	ppb	200	N/S	N/D	N/D	N/D
60 Color	units	15 units	N/S	N/D	N/D	N/D
61 Copper	ppm	1	N/S	N/D	N/D	N/D
62 Foaming Agents [MBAS]	ppb	500	N/S	N/D	N/D	N/D
63 Iron	ppb	300	N/S	N/D	N/D	N/D
64 Manganese	ppb	50	N/S	N/D	N/D	N/D
65 Methyl-tert-butyl ether [MTBE]	ppb	5	N/S	N/D	N/D	N/D
66 Odor-Threshold	TON (units)	3	N/S	N/D	N/D	N/D
67 Silver	ppb	100	N/S	N/D	N/D	N/D
68 Thiobencarb	ppb	1	N/S	N/D	N/D	N/D
69 Turbidity	units	5 units	N/S	0.023	0.10-0.10	0.10
70 Zinc	ppm	5	N/S	N/D	N/D	N/D
71 Total Dissolved Solids	ppm	1000	N/S	70	130-330	208
72 Specific Conductance	micromhos	1600	N/S	100	140-480	283
73 Chloride	ppm	500	N/S	5.0	4.9-29	11.6
74 Sulfate	ppm	500	N/S	4.3	6.5-31	13.3

Synthetic Organic Contaminants including Pesticides and Herbicides (Sampled in 2014)

75 DBCP	ppt	200	1.7	N/D	N/D	N/D
76 EDB	ppt	50	10	N/D	N/D	N/D
77 Aldrin	ppb	N/S	N/S	N/D	N/D	N/D
78 Chlordane	ppt	100	30	N/D	N/D	N/D
79 Chorothalonil	ppb	N/S	5	N/D	N/D	N/D
80 Dieldrin	ppb	N/S	0.02	N/D	N/D	N/D
81 Endrin	ppb	2	2	N/D	N/D	N/D
82 Heptachlor	ppt	10	8	N/D	N/D	N/D
83 Heptachlor Epoxide	ppt	10	6	N/D	N/D	N/D
84 Hexachlobenzene	ppb	1	0.03	N/D	N/D	N/D
85 Hexachlorocyclopentadiene	ppb	50	50	N/D	N/D	N/D
86 Lindane	ppt	200	32	N/D	N/D	N/D
87 Methoxychlor	ppb	30	0.09	N/D	N/D	N/D
88 PCB Arochlor Screen	ppt	500	90	N/D	N/D	N/D
89 Toxaphene	ppb	3	0.03	N/D	N/D	N/D
90 Triflualin	ppb	N/S	N/S	N/D	N/D	N/D
91 2,4,5-T (2C)	ppb	N/S	N/S	N/D	N/D	N/D
92 2,4,5-TP (Silvex) (2C)	ppb	50	25	N/D	N/D	N/D
93 2,4-D (2C)	ppb	70	20	N/D	N/D	N/D
94 Bentazon	ppb	18	200	N/D	N/D	N/D
95 Dalapon	ppb	200	200	N/D	N/D	N/D
96 Dicamba	ppb	N/S	N/S	N/D	N/D	N/D
97 Dinoseb	ppb	7	14	N/D	N/D	N/D
98 Pentachlorophenol	ppb	1	1	N/D	N/D	N/D
99 Picloram	ppb	500	500	N/D	N/D	N/D
100 N-Nitrosodiethylamine (NDEA)	ppt	N/S	10	N/D	N/D	N/D
101 N-Nitrosodimethylamine (NDMA)	ppt	N/S	10	N/D	N/D	N/D
102 N-Nitrosodi-n-butylamine (NDBA)	ppt	N/S	10	N/D	N/D	N/D
103 N-Nitrosodi-n-propylamine (NDPA)	ppt	N/S	10	N/D	N/D	N/D
104 N-Nitrosopyrollidine (NMEA)	ppt	N/S	10	N/D	N/D	N/D
105 N-Nitrosopyrollidine (NPYR)	ppt	N/S	10	N/D	N/D	N/D
106 Alachlor	ppb	2	4	N/D	N/D	N/D
107 Atrazine	ppb	1	0.15	N/D	N/D	N/D
108 Benzo(a)pyrene	ppt	200	7	N/D	N/D	N/D
109 Bis(2-ethylhexyl) adipate	ppb	N/S	N/S	N/D	N/D	N/D
110 Bis(2-ethylhexyl) phthalate	ppb	N/S	N/S	N/D	N/D	N/D
111 Bromcil	ppb	N/S	N/S	N/D	N/D	N/D
112 Butachlor	ppb	N/S	N/S	N/D	N/D	N/D
113 Diazinon	ppb	N/S	N/S	N/D	N/D	N/D
114 Dimethoate	ppb	N/S	N/S	N/D	N/D	N/D
115 Metolachlor	ppb	N/S	N/S	N/D	N/D	N/D
116 Metribuzin	ppb	N/S	N/S	N/D	N/D	N/D
117 Molinate	ppb	20	1	N/D	N/D	N/D
118 Propachlor	ppb	N/S	N/S	N/D	N/D	N/D
119 Simazine	ppb	4	4	N/D	N/D	N/D
120 Thiobencarb	ppb	70	70	N/D	N/D	N/D
121 3-Hydroxycarbofuran	ppb	N/S	N/S	N/D	N/D	N/D

122 Aldicarb	ppb	N/S	N/S	N/D	N/D	N/D
123 Aldicarb Sulfone	ppb	N/S	N/S	N/D	N/D	N/D
124 Aldicarb Sulfoxide	ppb	N/S	N/S	N/D	N/D	N/D
125 Carbaryl	ppb	N/S	N/S	N/D	N/D	N/D
126 Carbofuran	ppb	18	1.7	N/D	N/D	N/D
127 Methomyl	ppb	N/S	N/S	N/D	N/D	N/D
128 Oxamyl	ppb	50	26	N/D	N/D	N/D
129 Glyphosate	ppb	700	900	N/D	N/D	N/D
130 Endothall	ppb	100	580	N/D	N/D	N/D
131 Diquat	ppb	20	15	N/D	N/D	N/D
132 1,4 Dioxane	ppb	N/S	1	N/D	N/D	N/D

Unregulated Contaminants and Constituents of Interest

133 Sodium	ppm	N/S	N/S	9.5	7.7-26	13.1
134 Calcium	ppm	N/S	N/S	8.3	15- 40	23.8
135 Hardness	ppm	N/S	N/S	32	76-190	119
136 Magnesium	ppm	N/S	N/S	2.7	9.3-23	14.6
137 Potassium	ppm	N/S	N/S	N/D	2.3-3.0	1.9

Lead and Copper (Sampled in 2014)

		AL	PHG	90th Percentile	Number of sites exceeding AL
138 Lead	ppb	15	0.2	N/D	0
139 Copper	ppm	1.3	0.17	0.16	Zero

LEGEND:

- N/D** = Analyzed; Non Detected
- NTU** = Nephelometric Turbidity Unit
- PPM** = Parts Per Million
- MCL** = Maximum Contaminant Level
- MCLG** = Maximum Contaminant Level Goal
- MRDL** = Maximum Residual Disinfection Level
- PCi/l** = Picocuries per Liter
- PHG** = Public Health Goal
- N/A** = Not Applicable
- N/S** = No Standard
- TT** = Treatment Technique
- AL** = Alert Level

***Total Trihalomethanes =**

Sum of results for Chloroform, Bromoform, Dibromochloromethane and Bromochloromethane

Notes:

1. Surface water samples collected in 2014.
2. Groundwater samples collected in 2014.
3. Nitrates sampled annually.
4. Groundwater samples for NDMA, Pechlorate, and VOC's are collected quarterly.

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