

2018 San Francisco Public Utilities Commission (SFPUC) - Water Quality Monitoring Data for Finished Water

No.	PARAMETERS ⁽¹⁾	Unit	Alameda East		SVWTP Effluent		HTWTP Effluent		Baden ⁽²⁾		Sunset Outlets ⁽³⁾	
			Range	Average	Range	Average	Range	Average	Range	Average	Range	Average
Organic Chemicals												
a) Volatile Organic Chemicals (VOCs)												
1	1,1,1-Trichloroethane	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
2	1,1,2,2-Tetrachloroethane	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
3	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
4	1,1,2-Trichloroethane	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
5	1,1-Dichloroethane	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
6	1,1-Dichloroethylene	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
7	1,2,4-Trichlorobenzene	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
8	1,2-Dichlorobenzene	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
9	1,2-Dichloroethane	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
10	1,2-Dichloropropane	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
11	1,3-Dichloropropene	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
12	1,4-Dichlorobenzene	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
13	Benzene	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
14	Carbon tetrachloride	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
15	Monochlorobenzene	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
16	cis-1,2-dichloroethylene	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
17	Ethylbenzene	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
18	Methyl Tertiary Butyl Ether (MTBE)	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
19	Methylene chloride (Dichloromethane)	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
20	Styrene	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
21	Tetrachloroethylene	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
22	Toluene	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
23	trans-1,2-Dichloroethylene	ppb	ND	ND	ND	ND	ND	ND	N/M		N/M	
24	Trichloroethylene	ppb	ND	ND	ND	ND	ND	ND	N/M		N/M	
25	Trichlorofluoromethane (F-11)	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
26	Vinyl chloride	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND

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			Range	Average	Range	Average	Range	Average	Range	Average	Range	Average
27	Xylenes, Total	ppb	ND	ND	ND	ND	ND	ND	N/M		ND	ND
b) Semi-Volatile Organic Chemicals (SVOCs)												
28	Alachlor	ppb	N/M		N/M		N/M		N/M		ND	ND
29	Atrazine	ppb	N/M		N/M		N/M		N/M		ND	ND
30	Benzo[a]pyrene	ppb	N/M		N/M		N/M		N/M		ND	ND
31	Bis-(2-ethylhexyl)-adipate	ppb	N/M		N/M		N/M		N/M		ND	ND
32	Bis-(2-ethylhexyl)-phthalate	ppb	N/M		N/M		N/M		N/M		ND	ND
33	Chlordane	ppb	N/M		N/M		N/M		N/M		ND	ND
34	Endrin	ppb	N/M		N/M		N/M		N/M		ND	ND
35	Heptachlor	ppb	N/M		N/M		N/M		N/M		ND	ND
36	Heptachlor epoxide	ppb	N/M		N/M		N/M		N/M		ND	ND
37	Hexachlorobenzene	ppb	N/M		N/M		N/M		N/M		ND	ND
38	Hexachlorocyclopentadiene	ppb	N/M		N/M		N/M		N/M		ND	ND
39	Methoxychlor	ppb	N/M		N/M		N/M		N/M		ND	ND
40	Molinate	ppb	N/M		N/M		N/M		N/M		ND	ND
41	Simazine	ppb	N/M		N/M		N/M		N/M		ND	ND
42	Thiobencarb	ppb	N/M		N/M		N/M		N/M		ND	ND
43	Total PCBs	ppb	N/M		N/M		N/M		N/M		ND	ND
44	Toxaphene	ppb	N/M		N/M		N/M		N/M		ND	ND
Inorganic Chemicals												
45	Antimony	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/M	
46	Arsenic	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/M	
47	Barium	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/M	
48	Beryllium	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/M	
49	Cadmium	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/M	
50	Chromium (VI) ⁽⁴⁾	ppb	0.03	0.03	0.07	0.07	0.1	0.1	N/M		0.03 - 0.9	0.22
51	Chromium (Total)	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/M	
52	Fluoride	ppm	0.6	0.6	0.3 - 0.8	0.6	0.7 - 0.9	0.8	N/M		0.6 - 0.8	0.7
53	Lead	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/M	

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			Range	Average	Range	Average	Range	Average	Range	Average	Range	Average
54	Mercury	ppb	ND	ND	ND	ND	ND	ND	N/M		N/M	
55	Nickel	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/M	
56	Nitrate (as N)	ppm	ND	ND	ND	ND	ND	ND	N/M		ND - 0.44	ND
57	Nitrite (as N)	ppm	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58	Perchlorate	ppb	ND	ND	ND	ND	ND	ND	N/M		N/M	
59	Selenium	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/M	
60	Thallium	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/M	
61	Strontium	ppb	12	12	199	199	86	86	15	15	N/M	
Secondary Maximum Contaminant Levels												
62	Aluminum	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/M	
63	Chloride	ppm	<3	<3	10 - 13	11	15 - 18	16	<3 - 16	5	4 - 15	7
64	Color	Units	7 - 9	8	<5	<5	<5	<5	7	7	N/M	
65	Copper	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/M	
66	Foaming Agent (MBAS)	ppm	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	N/M	
67	Iron	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND - 105	ND
68	Manganese	ppb	0.4 - 4.9	3.3	1.3 - 31.6	4.9	0.8 - 3.8	<0.4	0.6 - 5.1	2.8	<2 - 10.2	2.4
69	Odor-Threshold	Units	ND	ND	ND	ND	ND	ND	ND	ND	N/M	
70	Silver	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/M	
71	Specific Conductance	µS/cm	23 - 63	32	221 - 393	305	198 - 221	212	42 - 213	76	50 - 366	100
72	Sulfate	ppm	0.9	0.9	29	29	19	19	1.1	1.1	3 - 6	5
73	Total Dissolved Solids	ppm	<20	<20	144	144	102 - 103	103	<20 - 22	<20	<20 - 145	42
74	Turbidity	NTU	0.2 - 1.1	0.3	ND - 1.0	ND	ND - 0.1	ND	ND - 0.7	0.3	0.1 - 0.5	0.2
75	Zinc	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/M	
Water Quality Parameters												
76	Alkalinity (as CaCO ₃)	ppm	<3 - 10	8	54 - 132	91	53 - 70	58	11 - 58	21	14 - 58	28
77	Bromide	ppb	<50	<50	<5	<5	21 - 27	21	<50	<50	<50	<50
78	Calcium (as Ca)	ppm	2.9	2.9	18 - 21	20	13	13	3.2	3.2	4 - 12	7
79	Hardness, Total (as CaCO ₃)	ppm	<3 - 15	8	68 - 153	102	53 - 64	59	9 - 59	18	11 - 65	26
80	Magnesium	ppm	<0.2	<0.2	5.9	5.9	6.2	6.2	0.3	0.3	1.0 - 5	3.1

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81	pH	--	4.1 - 9.3	8.1	7.0 - 9.6	8.6	8.8 - 9.4	9.2	8.7 - 9.8	9.5	8.2 - 10	9.3
82	Phosphate (ortho)	ppm	<0.3	<0.3	<0.031	<0.031	<0.3	<0.3	<0.3	<0.3	<0.031	<0.031
83	Potassium	ppm	0.2	0.2	1.0 - 1.2	1.1	0.7	0.7	0.3	0.3	0.3 - 1	0.4
84	Silica	ppm	5	5	7.1 - 8	7.5	2.8	2.8	5	5	4.8 - 5.7	5.1
85	Sodium	ppm	2.3	2.3	18	18	20	20	4.8	4.8	6.8 - 17	12.5
86	Total Organic Carbon	ppm	0.9 - 5.6	1.7	1.2 - 2.9	2.2	1.7 - 2.3	2.0	1.6	1.6	N/M	
Disinfectant Residuals, Disinfection Byproducts												
87	Bromate	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/M	
88	Chlorine Residual, Total	ppm	0.6 - 0.9	0.7	1.4 - 3.3	2.8	2.3 - 3.4	3.1	2.4 - 3.2	2.8	1.6 - 3.0	2.4
89	HAA5, Total	ppb	18 - 57	29	2 - 33	17	<2 - 35.0	4.7	4.6 - 54	30	N/M	
90	TTHM, Total	ppb	28 - 72	45	23 - 71	49	10 - 21	15	13 - 69	40	N/M	
Microorganisms												
91	<i>Cryptosporidium-total</i> ⁽⁵⁾	#/L	0 - 0.03	0.005	0	0	0	0	N/M		N/M	
92	<i>Escherichia coli</i>	P/A	A	A	A	A	A	A	A	A	A	A
93	<i>Giardia-total</i> ⁽⁵⁾	#/L	0 - 0.24	0.03	0	0	0 - 0.01	0.0007	N/M		N/M	
94	Total Coliform	P/A	A	A	A	A	A	A	A	A	A	A
Other Constituents												
95	2,4,6-Trichloroanisole	ppt	<3	<3	<3 - 11.8	<3	<3	<3	N/M		N/M	
96	2,4,6-Trichlorophenol	ppb	ND	ND	ND	ND	N/M		N/M		N/M	
97	Algal toxins - anatoxin- α	ppb	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	N/M	
98	Algal toxins - cylindrospermopsin	ppb	<0.09	<0.09	<0.5	<0.5	<0.5	<0.5	<0.09	<0.09	N/M	
99	Algal toxins - saxitoxin	ppb	N/M		<1	<1	<1	<1	N/M		N/M	
100	Algal toxins - total microcystins	ppb	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	N/M	
101	Boron	ppb	ND	ND	104	104	ND	ND	N/M		N/M	
102	Chlorate	ppb	42	42	84 - 190	155	74 - 230	140	78	78	N/M	
103	Chlorite	ppb	N/M		N/M		ND	ND	N/M		N/M	
104	Dissolved Organic Carbon	ppm	<0.3 - 3.0	1.7	N/M		N/M		N/M		N/M	
105	Flavor Profile Analysis, Chlorine	intensity	N/M		0	0	N/M		N/M		N/M	
106	Flavor Profile Analysis, Fishy	intensity	N/M		0	0	N/M		N/M		N/M	

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107	Flavor Profile Analysis, Geosmin (Earthy)	intensity	N/M		0	0	N/M		N/M		N/M	
108	Flavor Profile Analysis, Grassy	intensity	N/M		0	0	N/M		N/M		N/M	
109	Flavor Profile Analysis, MIB (Musty)	intensity	N/M		0	0	N/M		N/M		N/M	
110	Flavor Profile Analysis, Other	intensity	N/M		1	1	N/M		N/M		N/M	
111	Free Ammonia (NH3) as N	ppm	<0.03	<0.03	0.01 - 0.19	0.05	0.01 - 0.09	0.03	0.01 - 0.11	0.03	N/M	
112	Geosmin	ppt	<3	<3	<3 - 6.5	<3	<3 - 3	<3	<3	<3	<3	<3
113	Methylisoborneol (MIB)	ppt	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
114	N-nitroso-diethylamine (NDEA)	ppt	<2	<2	<2	<2	<2	<2	<2	<2	N/M	
115	N-nitroso-dimethylamine (NDMA)	ppt	<2 - 6.8	2.3	<2 - 2.7	<2	<2	<2	<2	<2	N/M	
116	N-nitroso-di-n-butylamine (NDBA)	ppt	<2	<2	<2	<2	<2	<2	<2	<2	N/M	
117	N-nitroso-di-n-propylamine (NDPA)	ppt	<2	<2	<2	<2	<2	<2	<2	<2	N/M	
118	N-nitroso-methylethylamine (NMEA)	ppt	<2	<2	<2	<2	<2	<2	<2	<2	N/M	
119	N-nitroso-pyrrolidine (NPYR)	ppt	<2	<2	<2	<2	<2	<2	<2	<2	N/M	
120	Nodularin	ppb	N/M		<0.05	<0.05	<0.05	<0.05	N/M		N/M	
121	Screening Triangle Test	-	N/M		0 - 1	0.5	0 - 3	1	N/M		1	1
122	Temperature	°F	48 - 84	54	50 - 68	58	54 - 72.1	63	51 - 70	56	51 - 65	56
123	UV254	Abs/cm	N/M		0.01 - 0.05	0.03	0.03 - 0.04	0.04	N/M		N/M	
124	Vanadium, V	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/M	
UCMR4												
125	alpha-BHC (alpha-HCH)	ppb	N/M		N/M		N/M		<0.01	<0.01	<0.01	<0.01
126	1-butanol	ppb	N/M		N/M		N/M		<2	<2	<2	<2
127	2-methoxyethanol	ppb	N/M		N/M		N/M		<0.4	<0.4	<0.4	<0.4
128	2-propen-1-ol	ppb	N/M		N/M		N/M		<0.5	<0.5	<0.5	<0.5
129	Bromochloroacetic Acid, HAA	ppb	<0.3	<0.3	N/M		1.9	1.9	N/M		N/M	
130	Bromodichloroacetic Acid, HAA	ppb	<0.5	<0.5	N/M		2.6	2.6	N/M		N/M	
131	Chlorodibromoacetic Acid, HAA	ppb	<0.3	<0.3	N/M		1.3	1.3	N/M		N/M	
132	Butylated Hydroxyanisole (BHA)	ppb	N/M		N/M		N/M		<0.03	<0.03	<0.03	<0.03
133	Chlorpyrifos	ppb	N/M		N/M		N/M		<0.03	<0.03	<0.03	<0.03
134	Dimethipin	ppb	N/M		N/M		N/M		<0.2	<0.2	<0.2	<0.2

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135	Ethoprop	ppb	N/M		N/M		N/M		<0.03	<0.03	<0.03	<0.03
136	Germanium, Ge	ppb	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
137	o-Toluidine	ppb	N/M		N/M		N/M		<0.007	<0.007	<0.007	<0.007
138	Oxyfluorfen	ppb	N/M		N/M		N/M		<0.05	<0.05	<0.05	<0.05
139	Profenofos	ppb	N/M		N/M		N/M		<0.3	<0.3	<0.3	<0.3
140	Quinoline	ppb	N/M		N/M		N/M		<0.02 - 0.029	<0.02	<0.02 - 0.026	<0.02
141	Tebuconazole	ppb	N/M		N/M		N/M		<0.2	<0.2	<0.2	<0.2
142	Total Permethrin (cis- & trans-)	ppb	N/M		N/M		N/M		<0.04	<0.04	<0.04	<0.04
143	Tribromoacetic Acid, HAA	ppb	<2	<2	N/M		<2	<2	N/M		N/M	
144	Tribufos	ppb	N/M		N/M		N/M		<0.07	<0.07	<0.07	<0.07

Notes:

- 1) Monitoring results showing no detections in the above table are reported as "Non-detected (ND)" if there exists State's regulatory Detection Limits for Purposes of Reporting. Otherwise, the result is shown as less than the corresponding laboratory reporting limit.
- 2) CS2 at Baden is the point-of-entry to the San Francisco Water System. UCMR4 parameters were collected at SSL Baden and SA#2 Baden.
- 3) Beginning in mid-2017, a small amount of groundwater from San Francisco (local) wells was intermittently added to the surface water supplies. Compliance monitoring locations are Sunset Reservoir Outlets.
- 4) Currently, there is no MCL for Chromium (VI). The previous MCL of 10 ppb was withdrawn by the SWRCB on 9/11/17.
- 5) The monitoring results of *Cryptosporidium-total* and *Giardia-total* were actually from Tesla Portal, upstream of Alameda East.

Keys:

" < "	= Less than the reporting limit	NTU	= Nephelometric Turbidity Unit
Abs/cm	= Absorbance per centimeter	pCi/L	= picoCuries per Liter
AL	= Action Level	POE	= Point-of-Entry
P/A	= Presence/Absence	ppb	= Part per billion
CS2	= Crystal Springs Pipeline #2	ppm	= Part per million
DLR	= Detection Limit for Purposes of Reporting	ppt	= Part per trillion
°F	= Fahrenheit	µS/cm	= MicroSiemens/Centimeter
ND	= Non-Detected	SVWTP	= Sunol Valley Water Treatment Plant
NL	= Notification Level	HTWTP	= Harry Tracy Water Treatment Plant
N/M	= Not Monitored		