

2017 San Francisco Public Utilities Commission (SFPUC) - Water Quality Monitoring Data for Finished Water

No.	PARAMETERS ⁽¹⁾	Unit	Alameda East		SVWTP Effluent		HTWTP Effluent		CS2 at 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	ND	ND	N/A	
2	1,1,2,2-Tetrachloroethane	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
3	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
4	1,1,2-Trichloroethane	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
5	1,1-Dichloroethane	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
6	1,1-Dichloroethylene	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
7	1,2,4-Trichlorobenzene	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
8	1,2-Dichlorobenzene	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
9	1,2-Dichloroethane	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
10	1,2-Dichloropropane	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
11	1,3-Dichloropropene	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
12	1,4-Dichlorobenzene	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
13	Benzene	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
14	Carbon tetrachloride	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
15	Monochlorobenzene	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
16	cis-1,2-dichloroethylene	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
17	Ethylbenzene	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
18	Methyl Tertiary Butyl Ether (MTBE)	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
19	Methylene chloride (Dichloromethane)	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
20	Styrene	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
21	Tetrachloroethylene	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
22	Toluene	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
23	trans-1,2-Dichloroethylene	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
24	Trichloroethylene	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
25	Trichlorofluoromethane (F-11)	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	

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			Range	Average	Range	Average	Range	Average	Range	Average	Range	Average
26	Vinyl chloride	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
27	Xylenes, Total	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
Inorganic Chemicals												
28	Antimony	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
29	Arsenic	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
30	Barium	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
31	Beryllium	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
32	Cadmium	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
33	Chromium (VI) ⁽⁴⁾	ppb	ND	ND	ND	ND	ND	ND	N/A		ND	ND
34	Chromium (Total)	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
35	Fluoride	ppm	0.7	0.7	0.3 - 0.8	0.7	0.6 - 0.8	0.7	N/A		0.6 - 0.8	0.7
36	Lead	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
37	Mercury	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
38	Nickel	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
39	Nitrate (as N)	ppm	ND	ND	ND	ND	ND	ND	N/A		ND	ND
40	Nitrite (as N)	ppm	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41	Perchlorate	ppb	ND	ND	ND	ND	ND	ND	N/A		N/A	
42	Selenium	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
43	Thallium	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
44	Strontium	ppb	12	12	234	234	87	87	39	39	N/A	
Secondary Maximum Contaminant Levels												
45	Aluminum	ppb	99	99	ND - 243	ND	ND	ND	ND - 86	ND	ND	ND
46	Chloride	ppm	<3 - 6.7	<3	4 - 13	10	14 - 19	17	<3 - 18	8	4 - 17	11
47	Color	Units	6 - 14	10	<5	<5	<5	<5	<5 - 15	9	<5	<5
48	Copper	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49	Foaming Agent (MBAS)	ppm	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	N/A	
50	Iron	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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			Range	Average	Range	Average	Range	Average	Range	Average	Range	Average
51	Manganese	ppb	ND	ND	ND - 28	ND	ND	ND	ND	ND	ND	ND
52	Odor-Threshold	Units	ND	ND	ND	ND	ND	ND	ND - 1	ND	N/A	
53	Silver	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
54	Specific Conductance	µS/cm	25 - 135	37	72 - 397	293	183 - 235	215	39 - 256	126	45 - 352	135
55	Sulfate	ppm	0.9	0.9	34	34	15	15	4.6 - 16	11	17	17
56	Total Dissolved Solids	ppm	<20	<20	122	122	106	106	36	36	<20 - 106	50
57	Turbidity	NTU	0.1 - 1.1	0.5	0.1 - 0.5	0.1	0.1 - 0.2	0.1	0.1 - 1.5	0.3	0.1 - 0.8	0.2
58	Zinc	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Water Quality Parameters												
59	Alkalinity (as CaCO ₃)	ppm	6 - 40	10	18 - 131	85	48 - 72	61	10 - 67	34	13 - 63	41
60	Bromide	ppb	<5	<5	15	15	16 - 30	23	<5	<5	N/A	
61	Calcium (as Ca)	ppm	2	2	31	31	14	14	5	5	N/A	
62	Hardness, Total (as CaCO ₃)	ppm	6 - 46	9	12 - 152	96	45 - 67	59	7 - 66	31	10 - 62	38
63	Magnesium	ppm	0.2	0.2	11.2	11.2	7.1	7.1	1.2	1.2	N/A	
64	pH	--	6.2 - 9.2	8.0	8.0 - 9.0	8.6	7.4 - 9.4	9.1	8.7 - 9.8	9.4	7.9 - 10	9.2
65	Phosphate (ortho)	ppm	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.3	<0.3	<0.3	<0.3
66	Potassium	ppm	0.2	0.2	2.0	2.0	0.8	0.8	<0.2	<0.2	N/A	
67	Silica	ppm	4.6	4.6	12.2	12.2	5.9	5.9	5.1 - 5.4	5.3	5.6 - 5.7	5.7
68	Sodium	ppm	2.3	2.3	31	31	22	22	7.9	7.9	N/A	
69	Total Organic Carbon	ppm	0.9 - 2.4	1.7	1.0 - 3.7	2.4	2.1 - 2.8	2.4	1.8 - 2.4	2.1	2.3 - 2.4	2.4

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			Range	Average	Range	Average	Range	Average	Range	Average	Range	Average
Radionuclides												
70	Gross Beta Particles	pCi/L	N/A		ND	ND	N/A		N/A		N/A	
Disinfectant Residuals, Disinfection Byproducts												
71	Bromate	ppb	ND	ND	N/A		ND - 5	ND	ND	ND	N/A	
72	Chlorine Residual, Total	ppm	0.5 - 0.8	0.7	1.7 - 3.1	2.8	2.6 - 3.2	2.9	1.9 - 3.0	2.7	0.6 - 2.6	2.3
73	HAA5, Total	ppb	<2 - 67	39	N/A		2.3 - 8.8	5.6	2.5 - 54	23	N/A	
74	TTHM, Total	ppb	<0.5 - 92	56	N/A		12 - 29	20	12 - 79	41	N/A	
Microorganisms												
75	<i>Cryptosporidium-total</i> ⁽⁵⁾	#/L	0 - 0.05	0.008	0	0	0 - 0.01	0.0007	N/A		N/A	
76	<i>Escherichia coli</i>	A/P	A	A	A	A	A	A	A	A	A	A
77	<i>Giardia-total</i> ⁽⁵⁾	#/L	0 - 0.22	0.05	0	0	0	0	N/A		N/A	
78	Total Coliform	A/P	A	A	A	A	A	A	A	A	A	A
Other Constituents												
79	1,1,1,2-Tetrachloroethane	ppb	N/A		N/A		N/A		ND	ND	N/A	
80	1,1-Dichloropropene	ppb	N/A		N/A		N/A		ND	ND	N/A	
81	1,2,3-Trichlorobenzene	ppb	N/A		N/A		N/A		ND	ND	N/A	
82	1,2,3-Trichloropropane	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	
83	1,2,4-Trimethylbenzene	ppb	N/A		N/A		N/A		ND	ND	N/A	
84	1,2-Dibromo-3-chloropropane	ppb	N/A		N/A		N/A		<0.5	<0.5	N/A	
85	1,2-Dibromoethane	ppb	N/A		N/A		N/A		<0.5	<0.5	N/A	
86	1,3,5-Trimethylbenzene	ppb	N/A		N/A		N/A		ND	ND	N/A	
87	1,3-Dichlorobenzene	ppb	N/A		N/A		N/A		ND	ND	N/A	
88	1,3-Dichloropropane	ppb	N/A		N/A		N/A		ND	ND	N/A	
89	2,2-Dichloropropane	ppb	N/A		N/A		N/A		ND	ND	N/A	
90	2-Butanone	ppb	N/A		N/A		N/A		<5	<5	N/A	
91	2-Chlorotoluene	ppb	N/A		N/A		N/A		ND	ND	N/A	
92	2-Hexanone	ppb	N/A		N/A		N/A		<5	<5	N/A	

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			Range	Average	Range	Average	Range	Average	Range	Average	Range	Average
93	4-Chlorotoluene	ppb	N/A		N/A		N/A		ND	ND	N/A	
94	4-Methyl-2-Pentanone (MIBK)	ppb	N/A		N/A		N/A		ND	ND	N/A	
95	Acetone	ppb	N/A		N/A		N/A		<10	<10	N/A	
96	Algal toxins - anatoxin-α	ppb	N/A		<0.165		N/A		N/A		N/A	
97	Algal toxins - cylindrospermopsin	ppb	N/A		<0.05		N/A		N/A		N/A	
98	Algal toxins - saxitoxin	ppb	N/A		<0.022		N/A		N/A		N/A	
99	Algal toxins - total microcystins	ppb	N/A		<0.15		N/A		N/A		N/A	
100	Boron	ppb	ND	ND	203	203	ND	ND	N/A		N/A	
101	Bromobenzene	ppb	N/A		N/A		N/A		ND	ND	N/A	
102	Bromochloromethane	ppb	N/A		N/A		N/A		ND	ND	N/A	
103	Chlorate	ppb	51	51	79	79	73 - 180	129	91	91	N/A	
104	Chlorite	ppb	N/A		N/A		ND	ND	N/A		N/A	
105	Chloroethane	ppb	N/A		N/A		N/A		ND	ND	N/A	
106	Dibromomethane	ppb	N/A		N/A		N/A		ND	ND	N/A	
107	Diisopropyl ether	ppb	N/A		N/A		N/A		ND	ND	N/A	
108	Dissolved Organic Carbon	ppm	1.2 - 2.3	1.8	N/A		N/A		N/A		N/A	
109	Dissolved Oxygen	ppm	N/A		N/A		N/A		14	14	12 - 13	12
110	Ethyl tert-Butyl Ether	ppb	N/A		N/A		N/A		ND	ND	N/A	
111	Flavor Profile Analysis, Chlorine	intensity	N/A		N/A		0	0	N/A		N/A	
112	Flavor Profile Analysis, Fishy	intensity	N/A		N/A		0	0	N/A		N/A	
113	Flavor Profile Analysis, Geosmin (Earthy)	intensity	N/A		N/A		1	1	N/A		N/A	
114	Flavor Profile Analysis, Grassy	intensity	N/A		N/A		0	0	N/A		N/A	
115	Flavor Profile Analysis, MIB (Musty)	intensity	N/A		N/A		0	0	N/A		N/A	
116	Flavor Profile Analysis, Other	intensity	N/A		N/A		0	0	N/A		N/A	

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			Range	Average	Range	Average	Range	Average	Range	Average	Range	Average
117	Free Ammonia (NH3) as N	ppm	<0.03	<0.03	N/A		0 - 0.17	0.03	0 - 0.13	0.04	0.07 - 0.12	0.10
118	Geosmin	ppt	N/A		<3 - 8.9	<3	N/A		N/A		N/A	
119	Hexachlorobutadiene	ppb	N/A		N/A		N/A		ND	ND	N/A	
120	Isopropylbenzene	ppb	N/A		N/A		N/A		ND	ND	N/A	
121	Methylisoborneol (MIB)	ppt	N/A		<3	<3	N/A		N/A		N/A	
122	Naphthalene	ppb	N/A		N/A		N/A		ND - 6.4	2.8	N/A	
123	n-Butylbenzene	ppb	N/A		N/A		N/A		ND	ND	N/A	
124	N-nitroso-diethylamine (NDEA)	ppt	<2	<2	N/A		<2 - 2.2	<2	<2 - 2	<2	N/A	
125	N-nitroso-dimethylamine (NDMA)	ppt	<2	<2	N/A		<2	<2	<2 - 3	<2	N/A	
126	N-nitroso-di-n-butylamine (NDBA)	ppt	<2	<2	N/A		<2	<2	<2	<2	N/A	
127	N-nitroso-di-n-propylamine (NDPA)	ppt	<2	<2	N/A		<2	<2	<2	<2	N/A	
128	N-nitroso-methylethylamine (NMEA)	ppt	<2	<2	N/A		<2	<2	<2	<2	N/A	
129	N-nitroso-pyrrolidine (NPYR)	ppt	<2	<2	N/A		<2	<2	<2	<2	N/A	
130	Nodularin	ppb	N/A		<0.05	<0.05	N/A		N/A		N/A	
131	n-Propylbenzene	ppb	N/A		N/A		N/A		ND	ND	N/A	
132	p-Isopropyltoluene	ppb	N/A		N/A		N/A		<0.5	<0.5	N/A	
133	Reduction Oxidation Potential (ORP)	mV	N/A		N/A		N/A		330	330	301 - 324	313
134	Screening Triangle Test	-	N/A		0 - 1	0.2	1	1	N/A		N/A	
135	sec-Butylbenzene	ppb	N/A		N/A		N/A		ND	ND	N/A	
136	Temperature	°F	48 - 66	55	49 - 70	57	53 - 71	62	50 - 70	57	51 - 64	58
137	tert Butyl Alcohol (TBA)	ppb	N/A		N/A		N/A		ND	ND	N/A	
138	tert-Butylbenzene	ppb	N/A		N/A		N/A		ND	ND	N/A	
139	tert-Methyl Amyl Ether (TAME)	ppb	N/A		N/A		N/A		ND	ND	N/A	
140	UV254	Abs/cm	N/A		0.02 - 0.05	0.04	0.04 - 0.4	0.05	0.05	0.05	0.04	0.04
141	Vanadium, V	ppb	ND	ND	ND	ND	ND	ND	ND	ND	N/A	

Notes:

- 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.
- CS2 at Baden is the point-of-entry to the San Francisco Water System.

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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 | pCi/L | = picoCuries per Liter |
| Abs/cm | = Absorbance per centimeter | ng/L | = Nanogram per Liter (part per trillion) |
| A/P | = Absent/Present | N/A | = Not Analyzed |
| CS2 | = Crystal Springs Pipeline #2 | ND | = Non-Detected |
| °F | = Fahrenheit | NTU | = Nephelometric Turbidity Unit |
| mg/L | = Milligram per Liter (part per million) | POE | = Point-of-Entry |
| µg/L | = Microgram per Liter (part per billion) | SVWTP | = Sunol Valley Water Treatment Plant |
| µS/cm | = MicroSiemens/Centimeter | HTWTP | = Harry Tracy Water Treatment Plant |
| mV | = Millivolts | | |