

WESTBOROUGH WATER DISTRICT - Water Quality Data for Year 2010

- SFPUC conducted annual monitoring of all VOCs in Table 64444-A and inorganic contaminants in Table 64431-A (except cyanide and asbestos, which are on 9-year monitoring cycle). All results not shown in the table below are less than the corresponding DLRs.
- SFPUC received CDPH waiver for annual monitoring of all except 4 SOCs in Table 64444-A. These 4 SOCs are atrazine, 2,4-D, glyphosate, and simazine, and are required to be monitored at local reservoirs only.
- Radionuclides are on 9-year monitoring cycle for contaminants in Table 64442. Contaminants in Table 64443 are not required based on monitoring results in 2002 and 2004. Latest monitoring of contaminants in Table 64442 were in 2007 and all were below DLRs.

(Data based on Hetch Hetchy water and effluents from both SVWTP and HTWTP)

DETECTED CONTAMINANTS	Unit	MCL	PHG or (MCLG)	Range or Level Found	Average or [Max]	Major Sources in Drinking Water
TURBIDITY						
For Unfiltered Hetch Hetchy Water	NTU	5	N/A	0.2 - 0.6 ⁽²⁾	[4.9] ⁽³⁾	Soil runoff
For Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	NTU	1 ⁽⁴⁾	N/A	-	[0.54]	Soil runoff
	-	min 95% of samples ≤ 0.3 NTU ⁽⁴⁾	N/A	97.6% - 100%	-	Soil runoff
For Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	NTU	1 ⁽⁴⁾	N/A	-	[0.19]	Soil runoff
	-	min 95% of samples ≤ 0.3 NTU ⁽⁴⁾	N/A	100%	-	Soil runoff
DISINFECTION BYPRODUCTS AND PRECURSOR (SFPUC Regional System) - for information only						
Total Trihalomethanes	ppb	80	N/A	14 - 92	[40] ⁽⁵⁾	Byproduct of drinking water chlorination
Haloacetic Acids	ppb	60	N/A	7 - 55	[25] ⁽⁵⁾	Byproduct of drinking water chlorination
Total Organic Carbon ⁽⁶⁾	ppm	TT	N/A	2.4 - 3.2	2.7	Various natural and man-made sources
DISINFECTION BYPRODUCTS AND PRECURSOR (Westborough Water District area)						
Total Trihalomethanes	ppb	80	N/A	12.9-27.9	21.5 ⁽⁵⁾	Byproduct of drinking water chlorination
Haloacetic Acids	ppb	60	N/A	5.1-18.9	12.0 ⁽⁵⁾	Byproduct of drinking water chlorination
MICROBIOLOGICAL						
Total Coliform ⁽⁷⁾	-	≤ 5.0% of monthly samples	(0)	-	0 positive	Naturally present in the environment
<i>Giardia lamblia</i>	cyst/L	TT	(0)	ND - 0.06	[0.06]	Naturally present in the environment
INORGANIC CHEMICALS						
Fluoride (source water) ⁽⁸⁾	ppm	2.0	1	ND - 0.7	0.3 ⁽⁹⁾	Erosion of natural deposits
Chloramine (as chlorine)	ppm	MRDL = 4.0	MRDLG = 4	29-2.11	1.61 ⁽⁵⁾	Drinking water disinfectant added for treatment

CONSTITUENTS WITH SECONDARY STANDARDS	Unit	SMCL	PHG	Range	Average	Typical Sources of Contaminant
Chloride	ppm	500	N/A	3 - 16	9.5	Runoff / leaching from natural deposits
Color	unit	15	N/A	<5 - 6	<5	Naturally-occurring organic materials
Specific Conductance	µS/cm	1600	N/A	33 - 316	179	Substances that form ions when in water
Sulfate	ppm	500	N/A	1.6 - 38.7	18.2	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	N/A	27 - 174	95	Runoff / leaching from natural deposits
Turbidity	NTU	5	N/A	0.07 - 0.33	0.16	Soil runoff

LEAD AND COPPER	Unit	AL	PHG	Range	90th Percentile	Typical Sources in Drinking Water
Copper	ppb	1300	300	1.3-104 ⁽¹⁰⁾	59.9	Corrosion of household plumbing systems
Lead	ppb	15	0.2	n/d-3.9 ⁽¹¹⁾	2.6	Corrosion of household plumbing systems

OTHER WATER QUALITY PARAMETERS	Unit	ORL	Range	Average
Alkalinity (as CaCO ₃)	ppm	N/A	8 - 98	49
Bromide	ppb	N/A	<10 - 17	<10
Calcium (as Ca)	ppm	N/A	2 - 26	12
Chlorate ⁽¹²⁾	ppb	(800) NL	92 - 357	150
Hardness (as CaCO ₃)	ppm	N/A	8 - 104	53
Magnesium	ppm	N/A	0.3 - 9	4.6
pH	-	N/A	8.2 - 8.7	8.5
Potassium	ppm	N/A	0.34 - 1.2	0.6
Silica	ppm	N/A	4.1 - 7.6	5.7
Sodium	ppm	N/A	3 - 22	13

KEY:
< / ≤ = less than / less than or equal to
AL = Action Level
Max = Maximum
Min = Minimum
N/A = Not Available
ND = Non-detect
NL = Notification Level
NTU = Nephelometric Turbidity Unit
ORL = Other Regulatory Level
ppb = part per billion
ppm = part per million
µS/cm = microSiemens / centimeter

Notes:

- All results met State and Federal drinking water health standards.
- Turbidity is measured every four hours. These are monthly average turbidity values.
- This is the highest turbidity of the unfiltered water served to customers in 2010. The switch of San Joaquin Pipelines and rate change caused elevated turbidities as a result of sediment resuspension in the pipelines. The turbidity spike was not observed further downstream at Alameda East.
- There is no MCL for turbidity. The limits are based on the TT requirements in the State drinking water regulations.
- This is the highest quarterly running annual average value.
- Total organic carbon is a precursor for disinfection byproduct formation. The TT requirement applies to the filtered water from the SVWTP only.
- The SFPUC adds fluoride to the naturally occurring level to help prevent dental caries in consumers. The CDPH requires our fluoride levels in the treated water to be maintained within a range of 0.8 ppm - 1.5 ppm. In 2010, the range and average of our fluoride levels were 0.6 ppm - 1.5 ppm and 1.0 ppm, respectively.
- The naturally occurring fluoride levels in the Hetch Hetchy and SVWTP raw water were ND and 0.15 ppm, respectively. The HTWTP raw water had elevated fluoride levels of 0.7 ppm - 0.9 ppm due to the continued supply of the fluoridated Hetch Hetchy & SVWTP treated water into the Lower Crystal Springs Reservoir, which supplies water via the San Andreas Reservoir to the HTWTP for treatment.
- The most recent Lead and Copper Rule monitoring was in 2010. 0 of 30 water samples collected at consumer taps had copper concentrations above the Action Level.
- The most recent Lead and Copper Rule monitoring was in 2010. 0 of 30 water samples collected at consumer taps had lead concentrations above the Action Level.
- There were no chlorate detected in the raw water sources except the Crystal Springs and San Andreas reservoirs, where the detected chlorate were 81 ppb and 57 ppb, respectively. The chlorate levels in both reservoirs are due to the transfer of the disinfected Hetch Hetchy water and SVWTP effluent into the Crystal Springs Reservoir. The detected chlorate in treated water is a degradation byproduct of sodium hypochlorite, the primary disinfectant used by SFPUC for water disinfection.