

2014 Daly City Water Quality Report

Your drinking water undergoes a rigorous monitoring program. Daly City staff vigilantly safeguards its water supplies and are proud to report that your water once again meets or surpasses every drinking water requirement set by the State Water Resources Control Board (State Board), Division of Drinking Water and the United States Environmental Protection Agency (USEPA) drinking water health standards. This brochure is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to state standards. We are committed to providing you with information because informed customers are our best allies.

Drinking Water Sources

The sources of drinking water (both tap water and bottled water) include rivers, lakes, oceans, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Such substances are called contaminants. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. In order to ensure that tap water is safe to drink, the USEPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health. You can obtain additional information about contaminants and potential health effects by calling the USEPA's Safe Drinking Water Hotline **800-426-4791**.



Crystal Springs Reservoir

The Daly City water system has two sources of water supply: surface water from the San Francisco Public Utilities Commission (SFPUC), and groundwater produced by local Daly City wells. These two sources are blended. SFPUC supplies approximately 50.7 percent of Daly City's average daily demand. The remaining 49.7 percent of Daly City's water supply comes from local groundwater wells, from an average depth of 300 feet below ground from a large underground aquifer known as the Westside Basin. This basin serves a large portion of the northern San Mateo Peninsula and extends north to Golden Gate Park in San Francisco. In many ways groundwater is a better protected source than surface water. Well water is only required to have

disinfections added prior to injection into the drinking water distribution system due to its closed environment and consistent test results.

The major source of SFPUC surface water originates from spring snow melt flowing down the Tuolumne River and stored in the Hetch Hetchy Reservoir and Watershed, located in Yosemite National Park. The pristine, well protected Sierra water source is exempt from filtration requirements by the USEPA and State Board's Division of Drinking Water. Water treatments provided by the SFPUC, including disinfection by ultraviolet light and chlorine, corrosion control by adjustment of the water pH value, fluoridation for dental health protection, and chloramination byproduct formation, are in place to meet all drinking water regulatory requirements.



Hetch Hetchy Reservoir

The Hetch Hetchy water is supplemented with surface water from two local Bay Area watersheds. Rainfall and runoff collected from 35,000 acres in Alameda Watershed spanning Alameda and Santa Clara counties goes to the Calaveras and San Antonio Reservoirs for filtration and disinfection at the Sunol Valley Water Treatment Plant. In San Mateo County, rainfall and runoff from 23,000 acres in the Peninsula Watershed are stored in Crystal Springs, San Andreas, and Pilarcitos Reservoirs and are filtered and disinfected at the Harry Tracy Water Treatment Plant. As in the past, the Hetch Hetchy Watershed provided the majority of our total surface water supply, with the remainder contributed by the two local watersheds in 2014.

How You Can Become Involved

The City welcomes your comments and suggestions on how to improve your municipal water system and better preserve our resources. Daly City conducts City Council meetings beginning at 7:00 p.m. on the second and fourth Mondays of each month. These meetings are open to the public and are located on the second floor of City Hall, 333-90th Street in the Council Chambers. Important customer information is also available on Daly City's website: www.dalycity.org.

City of Daly City - Water Quality Data for 2014⁽¹⁾

DETECTED CONTAMINANTS	Unit	MCL	PHG or (MCLG)	Range or Level Found	Average or [Max]	Typical Sources in Drinking Water
TURBIDITY⁽²⁾						
For Unfiltered Hetch Hetchy Water	NTU	5	N/A	0.2 - 0.8 ⁽³⁾	[2.8]	Soil runoff
For Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	NTU	1 ⁽²⁾	N/A	-	[0.98]	Soil runoff
	-	min 95% of samples	N/A	97% - 100%	-	Soil runoff
	-	≤0.3 NTU ⁽²⁾	N/A	-	-	Soil runoff
For Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	NTU	1 ⁽²⁾	N/A	-	[0.07]	Soil runoff
	-	min 95% of samples	N/A	100%	-	Soil runoff
	-	≤0.3 NTU ⁽²⁾	N/A	-	-	Soil runoff
DISINFECTION BYPRODUCTS AND PRECURSOR						
Total Trihalomethanes	ppb	80	N/A	6.1 - 53.8	[44.5] ⁽⁴⁾	Byproduct of drinking water chlorination
Halooxetic Acids	ppb	60	N/A	2.4 - 33.7	[23.4] ⁽⁴⁾	Byproduct of drinking water chlorination
Total Organic Carbon ⁽⁵⁾	ppm	TT	N/A	1.3 - 2.8	1.9	Various natural and man-made sources
MICROBIOLOGICAL						
Total Coliform, (Highest monthly value)	-	NoP ≤5.0% of monthly samples	(0)	-	[1.0%]	Naturally present in the environment
Fecal Coliform/E. coli	-	(6)	(0)	ND - 1	1	Human and animal fecal waste
Giardia lamblia	cyst/L	TT	(0)	<0.01 - 0.04	<0.01	Naturally present in the environment
E. coli (Federal Ground Water Rule)	-	0	(0)	ND	ND	Naturally present in the environment
INORGANIC CHEMICALS						
Fluoride (source water) ⁽⁷⁾	ppm	2.0	1	ND - 0.8	0.4 ⁽⁸⁾	Erosion of natural deposits; water additive to promote strong teeth
Chloramine (as chlorine)	ppm	MRDL = 4.0	MRDLG = 4	0.2 - 3.3	2.15 (9)	Drinking water disinfectant added for treatment
Nitrate (as NO ₃)	ppm	45	45	ND - 33.0	6.7	Erosion of natural deposits

CONSTITUENTS WITH SECONDARY STANDARDS	Unit	SMCL	PHG	Range	Average	Typical Sources in Drinking Water
Chloride	ppm	500	N/A	<3 - 15	9	Runoff / leaching from natural deposits
Odor Threshold	TON	3	N/A	ND - 1	ND	Naturally-occurring organic materials
Specific Conductance	µS/cm	1600	N/A	32 - 222	151	Substances that form ions when in water
Sulfate	ppm	500	N/A	0.9 - 32	17	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	N/A	31 - 150	81	Runoff / leaching from natural deposits
Turbidity	NTU	5	N/A	0.1 - 0.2	0.1	Soil runoff

LEAD AND COPPER	Unit	AL	PHG	Range	90th Percentile	Typical Sources in Drinking Water
Copper	ppb	1300	300	<0.05 - 0.41 ⁽¹⁰⁾	0.055	Internal corrosion of household plumbing systems
Lead	ppb	15	0.2	<0.005 ⁽¹⁰⁾	<0.005	Internal corrosion of household plumbing systems

OTHER WATER QUALITY PARAMETERS	Unit	ORL	Range	Average
Alkalinity (as CaCO ₃)	ppm	N/A	8 - 94	37
Bromide ⁽¹¹⁾	ppb	N/A	ND - 27	5
Calcium (as Ca)	ppm	N/A	3 - 20	11
Chlorate ⁽¹²⁾	ppb	(800) NL	34 - 740	314
Hardness (as CaCO ₃)	ppm	N/A	7 - 77	46
Magnesium	ppm	N/A	<0.2 - 6.4	3.9
pH	-	N/A	6.9 - 10.2	9.3
Potassium	ppm	N/A	0.2 - 1	0.6
Silica	ppm	N/A	2 - 5	4
Sodium	ppm	N/A	2.4 - 16	10
RADIONUCLIDES				
Gross Alpha Particle Activity	pCi/L	MCL	Range	Average or [Max]
		15	ND-3.9	ND

Notes:
(1) All results met State and Federal drinking water health standards. The data is based on Hetch Hetchy water, effluents from both the Sunol Valley and Harry Tracy Water Treatment Plants, and local sources.
(2) These are monthly average turbidity values measured every four hours daily.
(3) There is no turbidity MCL for filtered water. The limits are based on the TT requirements for filtration systems.
(4) This is the highest locational running annual average value.
(5) Total organic carbon is a precursor for disinfection byproduct formation. The TT requirement applies to the filtered water from the SVWTP only.
(6) A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or E. coli. Subsequent resamples were found to be negative.
(7) The SWRCB specifies the fluoride level in treated water be maintained within a range of 0.8 ppm - 1.5 ppm. In 2014, the range and avg. fluoride levels were 0.8 ppm - 1.2 ppm and 0.9 ppm, respectively for the SFPUC. Daly City water = 0.99 avg. in 2014
(8) The natural fluoride level in the Hetch Hetchy supply was ND. Elevated fluoride levels in SVWTP and HTWTP raw water are attributed to the transfer of fluoridated Hetch Hetchy water into the reservoirs.
(9) This is the highest running annual average value.
(10) The most recent Lead and Copper Rule monitoring was in 2013. Zero of the 52 water samples collected at consumer taps had either copper or lead concentrations above the Action Level. Further testing will take place in 2016.
(11) Bromide was monitored at HTWTP treated water in 2014.
(12) The detected chlorate in the treated water is a degradation product of sodium hypochlorite used by the SFPUC for water disinfection.

KEY:
< / S = less than / less than or equal to
µS/cm = microSiemens / centimeter
cyst/L = Cysts / Liter
AL = Action Level
Average = All test results divided by # of tests
Max = Maximum
Min = Minimum
MCL = Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal
MRDL = Maximum Residual Disinfectant Level
MRDLG = Maximum Residual Disinfectant Level Goal
N/A = Not Available
ND = Non-Detect
NL = Notification Level
NoP = Number of Coliform-Positive Samples
NTU = Nephelometric Turbidity Unit
ORL = Other Regulatory Level
PHG = Public Health Goal
ppb = parts per billion
SMCL = Secondary Maximum Contaminant Level
TT = Treatment Technique

Additional water quality data may be obtained by calling the Daly City Department of Water and Wastewater Resources at (650) 991-8200

The table to the left lists drinking water contaminants detected in 2014. Contaminants below federally established detection limits, such as arsenic, perchlorate, MTBE, and others, are not listed. The table contains the name of each contaminant, the applicable drinking water standards or regulatory action levels, the ideal goals for public health, the amount detected, the typical contaminant sources and footnotes explaining the findings. The State allows the San Francisco Public Utilities Commission (SFPUC) to monitor for some contaminants less than once per year because their concentrations do not change. For certain other contaminants that were absent in the water, based on many years of monitoring, the SFPUC received a monitoring waiver from the State.



Results from nitrate testing at one of Daly City's six wells (Well #4) showed amounts in excess of the maximum contaminant level of 45 parts per million; however, the 2014 blended average in the distribution system was 6.7 parts per million. Nitrate in drinking water at levels above 45 parts per million is a health risk for infants less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness. Symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 parts per million may also affect the ability of the blood to carry oxygen for other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant or pregnant, you should seek advice from your health care provider. Additionally, nitrate levels may rise quickly for short periods of time due to rainfall or agricultural activity.

In May 2012, USEPA published the third Unregulated Contaminant Monitoring Rule (UCMR3) that lists the total of 28 chemical contaminants and two viruses for monitoring by selected public water systems between 2013 and 2015. Unregulated contaminant monitoring helps USEPA and the State Water Resources Control Board to determine where certain contaminants occur and

Water Quality Data

whether the contaminants need to be regulated. Daly City was required to monitor the 28 chemical contaminants, and complete the four quarters of the UCMR3 by November 2014. Of the 28 contaminants analyzed, five (shown below) were detected. In the

Contaminants that may be present in source water include:

- Microbial contaminants**, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- Inorganic contaminants**, such as salts and metals that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
- Pesticides and herbicides** that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;
- Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems; and
- Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

absence of identifiable industrial sources other than chlorate, these contaminants are naturally occurring in the watersheds. Chlorate is a degradation product of the disinfectant used by

SFPUC for water disinfection, and is a common contaminant found in the water treatment facilities throughout the nation. A list of the 28 contaminants is available at USEPA's website: <http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr3/index.cfm> and http://www.swrcb.ca.gov/drinking_water/certlic/drinkingwater/NotificationLevels.shtml.



Reducing Lead from Plumbing Fixtures

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. There are no known lead service lines in your water distribution system. The City is responsible for providing high-quality drinking water (please see water quality footnote 10 in the adjacent Water Quality Data table), but cannot control the variety of materials used in plumbing components. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Infants and young children are typically more vulnerable to lead in drinking water than the general population. When your water has been sitting for several hours, you can further minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead levels in your water; you may wish to test your water with a home test kit. Additional information on lead in drinking water; testing methods, and steps you can take to minimize exposure is available from the **Safe Drinking Water Hotline 800-426-4791**, or at www.epa.gov/safewater/lead.



Daly City staff at work for the community

Unregulated Contaminant Monitoring Rule (UCMR3) Completed Sample Results						
DETECTED CONTAMINANTS	Unit	MCL ¹	PHG or (MCLG)	Range	Average	Typical Sources in Drinking Water
Chlorate	ppb	800 (NL)	n/a	50-230	113.17	Degradation of disinfectant
Chromium-total ²	ppb	50	(100)	<0.2-14	2.49	Erosion of natural deposits; industrial discharges
Chromium-6 ³	ppb	10	0.02	<0.03-14	2.31	Erosion of natural deposits; industrial discharges
Strontium	ppb	n/a	n/a	13-240	88.42	Erosion of natural and pipe deposits
Vanadium	ppb	50 (NL)	n/a	<0.2-6.5	1.26	Erosion of natural and pipe deposits

- For definitions of these water quality terms, please see the contaminants listing above.
- This MCL was established by CDPH. USEPA has a MCL of 100 ppb.
- CDPH has proposed a MCL of 10 ppb for chromium-6.