

THE CITY OF DALY CITY 2009 WATER QUALITY REPORT

June 2010



To Our Water Customers

The 2009 Water Quality Report contains required regulatory information about Daly City's water supply and how it complies with State standards. It is your right to know this information and to become an informed customer of your public water system. The City of Daly City is pleased to present this report to you.

Your drinking water undergoes a rigorous monitoring program. It is of the highest quality and meets all mandated regulations of the California Department of Public Health (CDPH) and the United States Environmental Protection Agency (USEPA).

How You Can Become Involved

The City welcomes your comments and suggestions on how to improve the 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 held in the City Council Chamber located on the second floor of the Daly City Civic Center, 333-90th Street.

Important customer information is also available on Daly City's website: www.dalycity.org.

Contacts For Your Questions

For questions regarding:

- Your water bill and starting or stopping service, contact Utility Billing at **(650) 991-8082**.
- Leaks, service problems, water quality information, technical data or any other water related questions, contact the Department of Water and Wastewater Resources at **(650) 991-8200**.
- This report, contact Patrick Sweetland, Director of the Department of Water and Wastewater Resources, at **(650) 991-8200**.



Mike Wilson



Bonnie Woo



Andy Sedik

Water Quality Data

The table on the next page lists drinking water contaminants detected in 2009. 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 2009 blended average in the distribution system was 4.9 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. High nitrate levels in drinking water can reduce the capacity of an 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 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.

During each quarter of 2008, Daly City completed the required monitoring for 25 contaminants under the USEPA's second Unregulated Contaminant Monitoring Regulation (UCMR). None of the 25 contaminants were detected. A list of the 25 contaminants is available at USEPA's website: <http://www.epa.gov/safewater/ucmr/ucmr2/basicinformation.html#list>. The third UCMR is scheduled for 2012.

Contaminants that may be present in source water include:

- ◆ **Microbial contaminants** are viruses and bacteria from wastewater treatment plants, septic systems, agricultural activity, or wildlife;
- ◆ **Inorganic contaminants** are salts and metals that occur naturally or result from stormwater runoff, wastewater discharges, mining, farming, or oil and gas production;
- ◆ **Pesticides and herbicides** come from agricultural activity, stormwater runoff, or residential use;
- ◆ **Organic chemical contaminants**, including synthetic and volatile organic chemicals, are byproducts of industrial processes and petroleum production, gas stations, stormwater runoff, agricultural activity, or septic systems; and,
- ◆ **Radioactive contaminants** that are naturally occurring, the result of mining activities or oil and gas production.

Key Water Quality Terms

Following are definitions of key terms noted on the adjacent water quality data table. These terms refer to the standards and goals for water quality described below:

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs or MCLGs as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standard (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Cryptosporidium is a parasitic microbe found in most surface water. The SFPUC regularly tests for this waterborne pathogen, and found it at very low levels in source water and treated water in 2009. However, current test methods approved by the USEPA do not distinguish between dead organisms and those capable of causing disease. If ingested, these parasites may produce symptoms of nausea, stomach cramps, diarrhea, and associated headaches.



Natalia Turnbeaugh

Local Wildlife

Drinking Water Sources

The sources of drinking water (both tap water and bottled water) include rivers, lakes, 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 human activity. Such substances are called contaminants. In order to ensure that tap water is safe to drink, the USEPA and the CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

The Daly City water system is supplied by two sources: surface water supplies managed by the San Francisco Public Utilities Commission (SFPUC) that is blended with groundwater produced by local Daly City wells. About 55 percent of Daly City's average daily demand is supplied from SFPUC surface water supplies. The remaining supply is provided by local wells.

The major source of SFPUC surface water originates from spring snowmelt in the Hetch Hetchy Watershed located in Yosemite National Park. This pristine water source meets all federal and state criteria for watershed protection. Because of existing disinfection treatment practice, extensive bacteriological quality monitoring, and high operational standards, the State has granted the Hetch Hetchy water source a filtration exemption.

Hetch Hetchy water is supplemented with surface water from two local Bay Area watersheds. Rainfall and runoff from 35,000 acres in Alameda and Santa Clara counties are collected in the Calaveras and San Antonio Reservoirs. Prior to distribution, water from these reservoirs is treated 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, Pilarcitos and Stone Dam Reservoirs. This water is treated at the Harry Tracy Water Treatment Plant.



Hetch Hetchy Reservoir



Junipero Serra Well

The remaining 45 percent of Daly City's water supply comes from local groundwater wells. Water is drawn from an average of 300 feet below ground from a large underground aquifer know 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. Due to its closed environment and consistent test results, well water is only required to have disinfectants added prior to it being placed into the drinking water distribution system.

Your Water Dollars at Work

In November 2009, Daly City completed the reconstruction of Reservoir 2B, replacing a 480,000 gallon steel reservoir built in 1964 with a new two million gallon concrete reservoir. This reservoir will allow for increased fire protection and storage capacity in the Southern Hills and Bayshore communities of Daly City.



Jeff Bastian

Reservoir 2B Before



Jeff Bastian

Reservoir 2B Demolition



Jeff Bastian

Reservoir 2B Reconstruction - Complete

Indoor Water Use Efficiency and Conservation Ordinance

Daly City Municipal Code 15.66 became effective on March 10, 2010. The ordinance addresses two public policy challenges. The first challenge is the supply limit amount of 4.292 million gallons of water a day set by the San Francisco Regional Water System. The second challenge is the enactment of a new state law requiring local agencies to conserve additional water and to enforce new indoor water use efficiency standards.

A few easy life-style shifts that save water and lower your water bill include:

- Turning off the faucet when you are brushing your teeth or doing dishes;
- Taking shorter showers;
- Using a broom to clean sidewalks or driveways;
- Operating your washing machine and dishwasher with full loads; and,
- Using a shut off hose nozzle (free to local residents) when you wash your car.

For Additional Information
Click on the Water Conservation
Icon at: www.dalycity.org



Free Water Conservation Devices and Cash Rebates!

To assist our customers in voluntary conservation efforts, the Department of Water and Wastewater Resources offers a variety of free water saving devices, publications, rebates and school programs for residents, commercial users and students.

For more information contact Cynthia Royer at (650) 991-8203 or by email at croyer@dalycity.org.



Rebates up to \$200



Remember...every drop counts!

Drinking Water Source Assessment

In March 2003 a drinking water source assessment was completed, and five of Daly City's six municipal production wells assessed were noted as being highly protected from potential pathways of contamination. Well #4 was noted as being moderately protected. Daly City's municipal wells are considered most vulnerable to automotive repair activities, roadway contaminants and railways.

A copy of the complete assessment is available from the CDPH Drinking Water Field Operations Branch, 850 Marina Bay Parkway, Building P, 2nd Floor, Richmond, CA 94804. You may also obtain a summary of the assessment by contacting either CDPH District Engineer Eric Lacy at (510) 620-3453, or Daly City's Director of Water and Wastewater Resources Patrick Sweetland at (650) 991-8200.

Fluoridation Program

The San Francisco Public Utilities Commission has fluoridated drinking water for more than fifty years. Since June 2004, Daly City fluoridates the blended water supply throughout the entire community in keeping with the optimum level established by the CDPH.



Special Health Needs

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.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people undergoing chemotherapy or organ transplants, having immune system disorders, some elderly and infants can be particularly at risk from infection. These individuals should seek advice about drinking water from their health care providers. Guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800) 426-4791 or at www.epa.gov/safewater.

City of Daly City - Water Quality Data for Year 2009 ⁽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	0.27 - 0.52 ⁽³⁾	[3.87] ⁽⁴⁾	Soil runoff
For Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	NTU	1 ⁽⁵⁾	N/A	-	[0.18]	Soil runoff
	-	min 95% of samples ≤0.3 NTU ⁽⁵⁾	N/A	100%	-	Soil runoff
For Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	NTU	1 ⁽⁵⁾	N/A	-	[0.26]	Soil runoff
	-	min 95% of samples ≤0.3 NTU ⁽⁵⁾	N/A	100%	-	Soil runoff

DISINFECTION BYPRODUCTS AND PRECURSOR (SFPUC Regional System) - for information only						
Total Trihalomethanes	ppb	80	N/A	9 - 54	[33] ⁽⁶⁾	Byproduct of drinking water chlorination
Haloacetic Acids	ppb	60	N/A	5 - 27	[21] ⁽⁶⁾	Byproduct of drinking water chlorination
Total Organic Carbon ⁽⁷⁾	ppm	TT	N/A	2.3 - 3.2	2.7	Various natural and man-made sources

DISINFECTION BYPRODUCTS AND PRECURSOR						
Total Trihalomethanes	ppb	80	N/A	0 - 48.7	[27.2] ⁽⁶⁾	Byproduct of drinking water chlorination
Haloacetic Acids	ppb	60	N/A	0 - 55.2	[21.0] ⁽⁶⁾	Byproduct of drinking water chlorination
Total Organic Carbon ⁽⁷⁾	ppm	N/A	N/A	0.0 - 2.12	1.53	Various natural and man-made sources

MICROBIOLOGICAL						
Total Coliform	-	NoP ≤5.0% of monthly samples	(0)	-	[0%]	Naturally present in the environment
<i>Giardia lamblia</i>	cyst/L	TT	(0)	0.01 - 0.05	[0.05]	Naturally present in the environment

INORGANIC CHEMICALS						
Fluoride (source water) ⁽⁸⁾	ppm	2.0	1	<0.1 - 0.8	0.3 ⁽⁹⁾	Erosion of natural deposits
Chlorine (including free chlorine and chloramine)	ppm	MRDL = 4.0	MRDLG = 4	0.2 - 2.8	1.81	Drinking water disinfectant added for treatment

CONSTITUENTS WITH SECONDARY STANDARDS	Unit	SMCL	PHG	Range	Average	Typical Sources in Drinking Water
Aluminum	ppb	200	N/A	<50 - 51	<50	Erosion of natural deposits
Chloride	ppm	500	N/A	4 - 14.6	9.5	Runoff / leaching from natural deposits
Color	unit	15	N/A	<5 - 9	<5	Naturally-occurring organic materials
Specific Conductance	µS/cm	1600	N/A	30 - 309	170	Substances that form ions when in water
Sulfate	ppm	500	N/A	1.1 - 35.6	16.6	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	N/A	22 - 168	92	Runoff / leaching from natural deposits
Turbidity	NTU	5	N/A	0.08 - 0.33	0.16	Soil runoff

LEAD AND COPPER	Unit	AL	PHG	Range	90th Percentile	Typical Sources in Drinking Water
Copper	ppb	1300	300	<2 - 160 ⁽¹⁰⁾	79	Corrosion of household plumbing systems
Lead	ppb	15	0.2	<5 - 14 ⁽¹⁰⁾	<5	Corrosion of household plumbing systems

OTHER WATER QUALITY PARAMETERS	Unit	ORL	Range	Average
Alkalinity (as CaCO ₃)	ppm	N/A	8 - 102	50
Boron	ppb	N/A	<100 - 102	<100
Bromide	ppb	N/A	<10 - 16	<10
Calcium (as Ca)	ppm	N/A	2 - 26	12
Chlorate ⁽¹¹⁾	ppb	(800) NL	56 - 511	258
Hardness (as CaCO ₃)	ppm	N/A	12 - 108	55
Magnesium	ppm	N/A	0.2 - 8.8	4.5
pH	-	N/A	8.7 - 8.8	8.7
Potassium	ppm	N/A	0.24 - 1.5	0.9
Silica	ppm	N/A	4.8 - 7.5	5.9
Sodium	ppm	N/A	3 - 23	14

KEY:
< / ≤ = 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
ppm = parts per million
SMCL = Secondary Maximum Contaminant Level
TT = Treatment Technique

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) Turbidity is a water clarity indicator; it also indicates the effectiveness of the filtration plants.
(3) Turbidity is measured every four hours. These are monthly average turbidity values.
(4) This is the highest turbidity of the unfiltered water served to customers in 2009. The highest single turbidity measurement of the unfiltered water in 2009 was 10 NTU, but the turbid water was pumped away to San Antonio Reservoir without serving customers. The startup of San Joaquin Pipelines caused elevated turbidities as a result of sediment resuspension in the pipeline.
(5) There is no MCL for turbidity. The limits are based on the TT requirements in the State drinking water regulations.
(6) This is the highest quarterly running annual average value.
(7) Total organic carbon is a precursor for disinfection byproduct formation. The TT requirement applies to the filtered water from the SVWTP only.
(8) The SFPUC adds fluoride to the naturally occurring level to help prevent dental cavities in consumers. The CDPH requires fluoride levels in the treated water to be maintained within a range of 0.8 - 1.5 ppm. Daly City water = 1.0 ppm avg in 2009.
(9) The naturally occurring fluoride levels in the Hetchy Hetchy and SVWTP raw water are ND and 0.2 ppm, respectively. The HTWTP raw water has elevated fluoride levels due to the continued supply of the fluoridated Hetch Hetchy & SVWTP treated water into Lower Crystal Springs Reservoir, which supplies water via San Andreas Reservoir to the HTWTP for treatment.
(10) The most recent Lead and Copper Rule monitoring was in 2007. Zero of the 66 water samples collected at consumer taps had either copper or lead concentrations above the Action Level. Further testing will take place in 2010.
(11) Chlorate was not detected in the raw water sources; however, it was detected in the treated water and is a byproduct of the degradation of sodium hypochlorite, the primary disinfectant used by SFPUC for water disinfection.

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



City of Daly City
 Department of Water and Wastewater Resources
 153 Lake Merced Boulevard
 Daly City, CA 94015

PRST STD
 U.S. POSTAGE
 PAID
 Daly City, CA
 Permit # 1394
 ECRWSS

Postal Customer



Jamal Williams

Water Main Flushing Program

Daly City staff routinely flushes water mains throughout the City in order to maintain water quality and remove sediment from the water distribution system. Sediment and rust can collect in water mains. This can discolor water, cause undesirable tastes and odors, and over time impede the flow of water through the main. The mains are flushed by operating valves in the street and opening hydrants to force the flow of water in one direction to properly flush the water main. The flushed water is dechlorinated and, if possible, directed to a landscaped area. The flushing continues until the water flowing out of the hydrant runs clear.



Due to dry year conditions in 2009, Daly City staff conducted an abbreviated flushing program. This encompassed the system outlying reservoir zones. In 2010, City staff will implement a system wide flushing program that is expected to start this summer and last approximately 6 months. Visit www.dalycity.org for more information.

If English is Not Your Primary Language:

This report contains important information regarding your health and drinking water. Call the Daly City Water and Wastewater Resources Department (650) 991-8200 should you require assistance in Chinese, Spanish or Tagalog.

此報告包括有關您的健康和食水的重要資料。如需華語協助，請來電大市水務及廢水資源部，電話（650）991-8200。

Este reporte contiene información muy importante de su salud y el agua que toma. Llame a Daly City Water and Wastewater Resources Department a (650) 991-8200 si necesita asistencia en Español.

Ang ulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong kalusugan at sa inumin ninyong tubig. Mangyari po lamang na tawagan ang Daly City Water and Wastewater Resources Department sa numero (650) 991-8200 kung kinakailangan ninyo ng tulong o interpretasyon sa wikang Tagalog.