

2009 Consumer Confidence Report

North Coast County Water District



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OUR MISSION STATEMENT

It is the mission of the North Coast County Water District to serve our customers by delivering a sufficient quantity of the highest quality water available in the most cost-effective, reliable and environmentally sensitive manner.

Furthermore, the Board, the staff and all employees of the District are committed to providing prompt, efficient and courteous customer service.

DID YOU KNOW?

- This report is based on facts of water quality and treatment from the year 2009.
- The North Coast County Water District has its own California Department of Public Health certified water quality laboratory.
- 10 samples per week, every week are taken throughout Pacifica to ensure the highest quality of water.

All of the drinking water delivered by the North Coast County Water District (NCCWD) during 2009 was purchased from the San Francisco Public Utilities Commission (SFPUC). Nearly all of the supply for NCCWD comes from Crystal Springs and San Andreas Reservoirs. All the water stored in the local reservoirs is filtered and disinfected at the Harry Tracy Water Treatment Plant, located in Millbrae, prior to delivery to NCCWD. There, the water is tested and monitored to ensure that it meets the standards for clarity set by the U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health (CDPH).

The major source of water for the SFPUC originates from spring snowmelt flowing down the Tuolumne River and is stored in the Hetch Hetchy Reservoir. This pristine water source is located in the well protected Sierra region and meets all federal and state criteria for watershed protection. Based on the SFPUC's disinfection treatment practice, extensive bacteriological quality monitoring, and high operational standards, the state has granted the Hetch Hetchy water source a filtration exemption. This means the source is so clean and protected that the SFPUC is not required to filter water from the Hetch Hetchy Reservoir.

The Hetch Hetchy system is supplemented with a small percentage of water from rainfall and runoff captured in the 23,000 acre Peninsula Watershed, located in San Mateo County, and stored in three reservoirs: Crystal Springs, San Andreas, and Pilarcitos. The water from these reservoirs is treated at the Harry Tracy Water Treatment Plant. Treatment processes at the HTWTP include ozonation, coagulation, flocculation, filtration, disinfection, chloramination, fluoridation, and corrosion control treatment.

General Information About Water

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health (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. In 2009, NCCWD's Certified Water Quality Lab collected and conducted thousands of water quality tests throughout the entire water distribution system. All results met or exceeded federal and state drinking water regulations.

Typically, the sources of drinking water (both bottled and tap) 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 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.

Contaminants that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic Contaminants, such as salts and metals, 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, 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 that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.

Radioactive Contaminants, can be naturally occurring or be the result of oil and gas production and mining activities.

More Information about contaminants and potential health effects can be obtained by calling USEPA's Safe Drinking Water Hotline 1-800-426-4791.

How to Read the Water Quality Chart

The table on Page 3 lists all drinking water contaminants detected in 2009. Contaminants below 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 action levels, the ideal goals for public health, the amount detected in water, the typical contaminant source and foot-notes explaining the findings. We believe you have a right to know what is in your drinking water. The column to the right provides definitions for the terms in the chart.



Definitions of Terms Used

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 (EPA).

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 level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for treatment below which there is no known or expected risk to health.

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

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

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

North Coast County Water District - Water Quality Data for Year 2009⁽¹⁾

DETECTED CONTAMINANTS	Unit	MCL	PHG or (MCLG)	Range or Level Found	Average or [Max]	Major 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 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
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
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	10.9 - 43.2	[18.2] ⁽⁶⁾	Byproduct of drinking water chlorination
Haloacetic Acids	ppb	60	N/A	3.0 - 19.8	[10.0] ⁽⁶⁾	Byproduct of drinking water chlorination
Total Organic Carbon ⁽⁷⁾	ppm	N/A	N/A	2.3 - 3.2	2.7	Various natural and man-made sources
MICROBIOLOGICAL						
Total Coliform	-	≤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) ⁽⁹⁾	ppm	2.0	1	<0.1 - 0.8	0.3 ⁽¹⁰⁾	Erosion of natural deposits
Chlorine (including free chlorine and chloramine)	ppm	MRDL = 4.0	MRDLG = 4	.05 - 2.20	[1.62] ⁽⁶⁾	Drinking water disinfectant added for treatment

CONSTITUENTS WITH SECONDARY STANDARDS	Unit	SMCL	PHG	Range	Average	Typical Sources of Contaminant
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	Major Sources in Drinking Water
Copper	ppb	1300	300	25.46 - 192.40 ⁽¹¹⁾	129.33	Corrosion of household plumbing systems
Lead	ppb	15	0.2	1 - 3.2 ⁽¹²⁾	2.86	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 ⁽¹³⁾	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
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 a water clarity indicator; it also indicates the effectiveness of the filtration plants.
- 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 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 pipelines.
- 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 2009, the range and average of our fluoride levels were 0.7 ppm - 1.3 ppm and 1.0 ppm, respectively.
- The naturally occurring fluoride levels in the Hetch 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.
- The most recent Lead and Copper Rule monitoring was in 2007. 0 of 32 water samples collected at consumer taps had copper concentrations above the Action Level.
- The most recent Lead and Copper Rule monitoring was in 2007. 0 of 32 water samples collected at consumer taps had lead concentrations above the Action Level.
- There were no chlorate detected in the raw water sources. The detected chlorate in treated water is a byproduct of the degradation of sodium hypochlorite, the primary disinfectant used by SFPUC for water disinfection.

Note: Additional water quality data may be obtained by calling the North Coast County Water District at (650) 355-3462.
 Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.
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Special Health Needs

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791) or at www.epa.gov/safewater.

Cryptosporidium is a parasitic microbe found in most surface water. The SFPUC regularly tests for waterborne pathogens, and found *cryptosporidium* at very low levels in source 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.

Reducing Lead from Plumbing Fixtures

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing.

The NCCWD is responsible for providing high quality drinking water, but cannot control the variety of materials used in your household or building plumbing components. When your water has been sitting for several hours, you can 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 in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.