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# Consumer Confidence Report 2005

## Mission Statement

The purpose of the North Coast County Water District is to provide our customers with a plentiful supply of the highest quality water and outstanding service in a financially responsible manner.

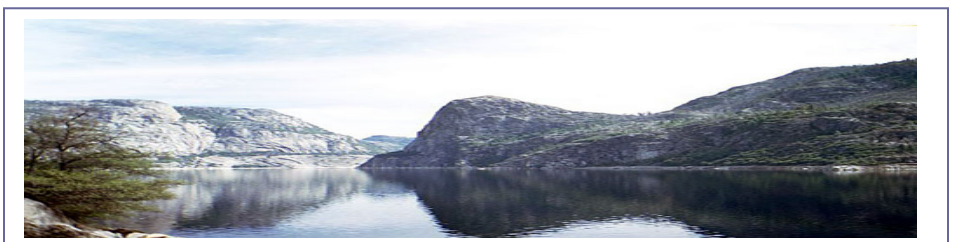
This annual Consumer Confidence Report is prepared to inform you, our customer, about the quality of your water. This report is based on data compiled during Calendar Year 2004.

## Where Our Water Comes From

All of the drinking water served by NCCWD during 2004 was purchased from the San Francisco Public Utilities Commission (SFPUC) who provides water to NCCWD from the Hetch Hetchy watershed located in Yosemite National Park and from local watersheds located in Alameda County and the Peninsula.

Nearly all of the supply for NCCWD comes from Crystal Springs and San Andreas Reservoirs. The reservoirs collect and store rain and runoff from the watersheds and also store water delivered from the Hetch Hetchy Reservoir. All the water stored in the local reservoirs is filtered and disinfected at the Harry Tracy Filter 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 and the California Department of Health Services.

A small portion of the water supply is directly from the Hetch Hetchy Reservoir, a high quality source located in a mountain wilderness area with limited human access and therefore requires only disinfection treatment.



## Fluoride in Your Drinking Water

In January 2004, when the Hetch Hetchy water supply was unavailable, eleven compliance samples collected showed fluoride below the optimum level. This was caused by the planned shut-down of the Polhemus Fluoride Station to avoid over-fluoridation. The low fluoride levels did not result in any adverse health effects to customers.

Upon completion of a new fluoridation facility in the East Bay in September 2005, the SFPUC will fluoridate the drinking water of its entire suburban wholesale service area to protect their customers' dental health. This new facility, which will replace the SFPUC's aged Polhemus Fluoride Station in San Mateo County, will not change the fluoride level in the water that we receive from the SFPUC.

For more information about fluoride, visit the SFPUC website at [sfwater.org/fluoride](http://sfwater.org/fluoride). Here are some phone numbers you may also call: SFPUC Fluoride Information Line (866) 668-6008 and the San Mateo County Health Department (650) 372-8572.

## General Information About Water

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (U.S. EPA) and the California Department of Health Services (DHS) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DHS regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

In addition, 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, people 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. U.S. EPA/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 U.S. EPA Safe Drinking Water Hotline (800) 426-4791 or on U.S. EPA's web site [epa.gov/safewater](http://epa.gov/safewater).

Typically, the sources of drinking 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 (barium), and can pick up substances resulting from the presence of animals or from human activity.

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**, which 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 and septic systems.

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

## How the Public Can Get Involved

Meetings of the North Coast County Water District Board of Directors begin at 7:00 p.m. on the third Wednesday of each month and are open to the public. Meetings are held at the District offices located at 2400 Francisco Boulevard.

If you have any questions or need any additional information, you may reach us by phone at (650) 355-3462, e-mail at [info@nccwd.com](mailto:info@nccwd.com), or by mail at the NCCWD, PO Box 1039, Pacifica, CA 94044.



## Understanding the Charts

NCCWD believes you have a right to know what is in your drinking water. A summary of the key results are presented on the following page. Here are a few definitions to make the charts easier to read.

**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 U.S. Environmental Protection Agency.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

**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 or 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.

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

**Variations and Exemptions:** Permission from the State of California or USEPA not to meet an MCL or a treatment technique under certain conditions.

**Waiver:** Permission from the State to decrease monitoring frequency for a particular contaminant.

**Mg/L:** Milligrams per liter (which is equal to parts per million—ppm). One part per million can be compared to one cent in ten thousand dollars.

**Ug/L:** Micrograms per liter (which is equal to parts per billion—ppb). One part per billion can be compared to one cent in ten million dollars.

## Cryptosporidium and Giardia

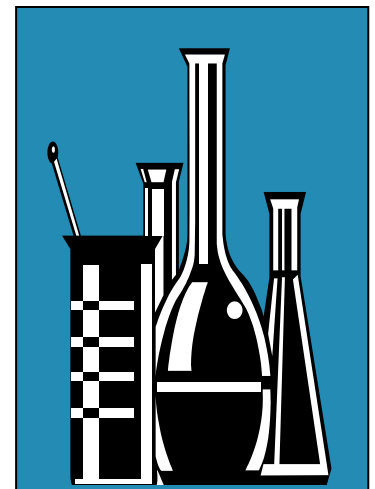
Cryptosporidium and Giardia are parasitic microbes found in most surface water supplies and can pose a potential health threat. If ingested, either may produce symptoms of diarrhea, stomach cramps, upset stomach, and slight fever. Some people are more vulnerable, especially those with compromised immune systems. The SFPUC tests regularly for Cryptosporidium and Giardia in both source and treated water supplies. Both were occasionally found at very low levels in the SFPUC's water in 2004.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants, including Cryptosporidium and Giardia. The presence of small amounts of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the USEPA Safe Drinking Water Hotline at (800) 426-4791.

## SFPUC Completed Chloramination Conversion

In February 2004, the SFPUC successfully changed to chloramine disinfection of its water. Chloramine is more stable and lasts longer in water than chlorine, and helps the SFPUC meet current and future water quality regulations. Chloramine improves drinking water quality. For certain sensitive uses such as fish and amphibian tanks, kidney dialysis and industrial processes, chloraminated water must be treated before use. For more information, visit the SFPUC website at [better.sfwater.org](http://better.sfwater.org).

Recently, the California Conference of Local Health Officers (CCLHO) joined DHS and EPA in endorsing the use of chloramines as a safe alternative to chlorine in the residual disinfection of public drinking water supplies. The CCLHO concluded that chloramine protects public health by controlling exposure to waterborne organisms known to cause infectious diseases in humans, while at the same time lowering regulated disinfection byproducts.



## North Coast County Water District Water Quality Data for Year 2004 <sup>(1)</sup>

DETECTED CONTAMINANTS	Unit	MCL	PHG (MCLG)	Range	Average (Maximum)	Typical Sources in Drinking Water
<b>TURBIDITY <sup>(2)</sup></b>						
Unfiltered Hetch Hetchy Water, max 5 NTU	-	TT	NS	0.28 - 0.46 <sup>(3)</sup>	(5) <sup>(4)</sup>	Soil run-off
Filtered Water - Harry Tracy WTP, max 1 NTU	-	TT	NS	-	(0.14)	Soil run-off
95 percentage of time < 0.3 NTU	-	TT	NS	100% <sup>(13)</sup>	-	Soil run-off
Filtered Water - Sunol Valley WTP, max 1 NTU	-	TT	NS	-	(0.41)	Soil run-off
95 percentage of time < 0.3 NTU	-	TT	NS	99% <sup>(14)</sup>	-	Soil run-off
<b>ORGANIC CHEMICALS <sup>(5)</sup></b>						
<b>DISINFECTION BY-PRODUCTS (SFPUC Transmission System)</b>						
Total Trihalomethanes (TTHMs)	ppb	80	NS	12 - 48	40 <sup>(7)</sup>	By-product of drinking water chlorination
Total Haloacetic Acids (HAAs)	ppb	60	NS	6 - 30	19 <sup>(7)</sup>	By-product of drinking water chlorination
Total Organic Carbon (TOC) <sup>(6)</sup>	ppm	NS	NS	2.6 - 3.1	2.9	Various natural and man-made sources
<b>DISINFECTION BY-PRODUCTS (North Coast County Water District)</b>						
Total Trihalomethanes (TTHMs)	ppb	80	NS	16.5 - 31.2	26.5 <sup>(7)</sup>	By-product of drinking water chlorination
Total Haloacetic Acids (HAAs)	ppb	60	NS	8.1 - 14.7	12.1 <sup>(7)</sup>	By-product of drinking water chlorination
Total Organic Carbon (TOC)	ppm	NS	NS	2.6 - 3.1	2.9	Various natural and man-made sources
<b>MICROBIOLOGICAL (North Coast County Water District)</b>						
Total Coliform, percentage of positive detected in any month	%	=< 5	(0)	0 - 2.5	2.5	Naturally present in the environment
<b>INORGANIC CHEMICALS</b>						
Aluminum	ppb	1000	600	3 - 43	26	Erosion of natural deposits
Barium	ppb	1000	2000	3 - 50	23	Erosion of natural deposits
Fluoride <sup>(8)(9)</sup>	ppm	2	1	<0.1 - 0.14	<0.1	Erosion of natural deposits
Chlorine (North Coast County Water District)	ppm	MRDL=4	MRDLG=4	.52 - 2.70	2.0 <sup>(7)</sup>	Drinking water disinfectant added for treatment

CONSTITUENTS WITH SECONDARY STANDARDS	Unit	SMCL	PHG	Range	Average	Typical Sources in Drinking Water
Chloride	ppm	500	NS	<3 - 44	8	Runoff / leaching from natural deposits
Color	unit	15	NS	<5 - 6	<5	Naturally-occurring organic materials
Iron	ppb	300	NS	<10 - 32	14	Leaching from natural deposits
Manganese	ppb	50	NS	<2 - 6	3	Leaching from natural deposits
Specific Conductance	µS/cm	1600	NS	24 - 440	183	Substances that form ions when in water
Sulfate	ppm	500	NS	<1 - 58	23	Runoff/leaching from natural deposits
Total Dissolved Solids	ppm	1000	NS	29 - 171	101	Runoff / leaching from natural deposits
Turbidity	NTU	5	NS	0.07 - 0.27	0.14	Soil runoff

LEAD AND COPPER RULE STUDY (North Coast County Water District)	Unit	AL	PHG	Range	90th Percentile <sup>(10)</sup>	Typical Sources in Drinking Water
Copper	ppb	1300	170	34.0 - 236.5	68.3 <sup>(11)</sup>	Corrosion of household plumbing systems
Lead	ppb	15	2	<1.0	<1.0 <sup>(12)</sup>	Corrosion of household plumbing systems

OTHER WATER QUALITY PARAMETERS	Unit	AL	Range	Average
Alkalinity (as CaCO <sub>3</sub> )	ppm	NS	10 - 138	59
Boron	ppb	1000	13 - 74	38
Calcium	ppm	NS	3 - 27	14
Hardness (as CaCO <sub>3</sub> )	ppm	NS	7 - 145	62
Fluoride	ppm	NS	0.1 - 1.2	1.0
Magnesium	ppm	NS	<0.5 - 10	5.4
pH	unit	NS	7.5 - 10.5	8.8
Potassium	ppm	NS	0.3 - 2	1.0
Silica	ppm	NS	5 - 8	6.0
Sodium	ppm	NS	3 - 18	12

Key:
< = less than
TT = Treatment Technique
AL = Action Level
NS = No standard
NTU = Nephelometric Turbidity Unit
ppb = parts per billion
ppm = parts per million
µS/cm = microSiemens/centimeter

- All results met State and Federal drinking water regulations.
- Turbidity is the water clarity indicator; it also indicates the quality of the water and the treatment system efficiency.
- Results are based on monthly average turbidities measured at Tesla Portal.
- Turbidity is measured every four hours. This is a single measurement result. Higher turbidities occurred in the Hetch Hetchy system in January 2004 while returning the Hetch Hetchy water supply to service, but the water was not served to customers.
- DHS has approved SFPUC's request for a waiver of 35 additional synthetic organic chemicals.
- TOC is a precursor for disinfection by-product formation. Data are obtained from effluent monitoring at Sunol Valley Water Treatment Plant.
- This is the highest quarterly running annual average value.
- These data indicate the source water fluoride levels. Fluoride was added at Harry Tracy Water Treatment Plant and Polhemus Fluoride Station to prevent dental cavities in consumers.
- Source water data were obtained from the following reservoirs: Hetch Hetchy, Calaveras, San Antonio, Lower Crystal Springs, San Andreas, Stone Dam, and Pilarcitos.
- The 90th percentile levels of lead and copper must not be greater than the action levels.
- In 2004, 0 out of 33 residences were over the copper Action Level at consumer taps.
- In 2004, 0 out of 33 residences were over the lead Action Level at consumer taps.
- This is the minimum percentage of time that the filtered water turbidity is less than 0.3 NTU.

Note: Additional water quality data may be obtained by calling the NCCWD at (650) 355-3462. This report contains important information about your drinking water.

Translate it or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potabl. Tradúzcalo o hable con alguien que lo entienda bien.

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.