WHERE YOUR WATER COMES FROM

FREQUENTLY ASKED QUESTIONS ABOUT NAPA'S WATER

Q. Does the City of Napa add fluoride to the water supply?

A. No. The only fluoride present in the Napa water supply is naturally occurring. Based on generally accepted scientific knowledge, the Centers for Disease Control (CDC) has established an optimal level for fluoride in drinking water of 0.7 – 1.2 ppm to fight tooth decay. Residents concerned about getting enough fluoride should consult their dentist about fluoride rinses, tablets, drops and gels.

Q. What is the hardness level in the City of Napa?

A. The City of Napa's water is moderate to moderately hard. Total hardness runs from about 1.7 to 9.6 grains per gallon (29-164 ppm), depending on which of the three treatment plants are on line. Most parts of the City receive water in the moderate 5–7 grains per gallon (86-120 ppm) range.

CONTAMINANT SOURCES and HEALTH EFFECTS

BORON – Industrial discharge; runoff from glass and ceramic production – Some men who drink water containing boron in excess of the AL over many years may experience reproductive effects, based on studies on dogs.

CHLORIDE -Runoff/leaching from natural deposits; seawater influence

COLOR – Naturally-occurring organic materials

COPPER – Leaching from natural deposits; discharge from mining and industrial waste; leaching from copper pipes – Copper is an essential nutrient, but some people who drink water-containing copper in excess of the action level could experience gastrointestinal distress. Some people who drink water-containing copper in excess of the Al over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

FLUORIDE – Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories – Some people who drink water containing fluoride in excess of the federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL of 2 mg/L may get mottled teeth. Mottling (dental fluorosis) may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gum.

LEAD – Corrosion of household plumbing – Infants and children who drink water containing lead in excess of the AL may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure.

MANGANESE - Leaching from natural deposits

ODOR - Naturally-occurring organic materials

SILVER - Industrial discharges

SPECIFIC CONDUCTANCE - Substances that form ions when in water; seawater influence

SULFATE - Runoff/leaching from natural deposits; industrial wastes

TOTAL DISSOLVED SOLIDS (TDS) - Runoff/leaching from natural deposits

VANADIUM – Naturally-occurring sources; burning of fuel oils – The AL of babies of some pregnant women who drink water containing vanadium in excess of the AL may have an increased risk of getting cancer.

CITY of NAPA

2003 DRINKING WATER QUALITY REPORT TO CONSUMERS

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

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800) 426-4791, or visit the web site at http://www.epa.gov/safewater/hfacts.html.

After reading this report, if you have any questions regarding the water quality or the Water Division in general, please call (707) 257-9521. An emergency phone number is available for customer use during weekends, holidays and after office hours: (707) 253-4451. For more information, please contact Turan Ramadan at (707) 258-2961.

The City of Napa also encourages citizens to participate in our City Council meetings, which take place on the first and third Tuesday of each month at 3:30 – 5:00 pm and again at 6:30 – 9:00 pm, in the Council Chambers at City Hall, 955 School Street. Please see our website at http://www.cityofnapa.org for more information concerning city activities.

The City of Napa continuously tests the water quality supply for a variety of constituents as required by state regulations. The following tables show those contaminants detected and their levels. ***This Water Quality Report represents the chemical water quality data for each water source serving the City of Napa, for the months of January 1, 2003 to December 31, 2003.***

SOURCE WATER INFORMATION

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.

The City of Napa Water Division uses and operates three surface-type water sources: 1) Barker Slough in the Sacramento Delta via the North Bay Aqueduct, 2) Lake Hennessey, and 3) Lake Milliken.

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 byproducts 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.

SOURCE WATER ASSESSMENT and VULNERABILITY SUMMARY

Source Water Assessments evaluate the quality of the water used as drinking water supplies for local communities. The assessment survey examines activities associated with the specific waterway and surrounding areas to determine their contribution to contamination. These potential contributors are then compiled into a Vulnerability Summary or Sanitary Survey. Results from the Vulnerability Summary and Sanitary Survey show that the most significant potential sources of contaminants for the City of Napa's source waters are:

Lake Hennessey (Assessment Completed, March, 2002):

• Pacific Union College Waste Water Treatment Plant • Septic Tank Systems (in Angwin) • Vineyards • Hazardous Material Spills Due to Traffic Accidents (particularly on Highway 128 near the lake) • Fires •

Lake Milliken (Assessment Completed, March, 2002):

• Grazing Animals • Wild Animals • Fires • Vineyards •

Sacramento Delta (Assessment Completed, Dec., 2002):

• Recreational Use • Urban & Agricultural Runoff • Grazing Animals • Herbicide Application • Seawater Intrusion •

Copies of the complete assessments are available at the California Department of Health Services, Drinking Water Field Operations Branch, Santa Rosa District Office, 50 D Street, Suite 200, Santa Rosa, CA 95404. You may request that a summary of the assessment be sent to you by contacting Guy J. Schott, Associate Sanitary Engineer, California Department of Health Services, at (707) 576-2732.

COMPLIANCE WITH DRINKING WATER STANDARDS

To protect public health, the Environmental Protection Agency (EPA) and the California Department of Health Serves (DOHS) set maximum contaminant levels (MCL), and maximum contaminant level goals (MCLG) or action levels (AL) for contaminants. Drinking water regulations also require certain water treatment techniques to reduce the level of contaminants.

A primary purpose of this annual report is to provide Napa's water consumers with specific information regarding any contaminants detected that are in violation of the regulations set forth by the EPA, as well as the related potential adverse health effects. The legend below will assist you in reading the tables of data representing Napa's water quality and contaminant tests. The table contains the names of the substances, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the amount detected, the typical source of such contaminants, and other notes explaining our monitoring process or specific findings. It is important that the consumer understands the definitions of MCL and MCLG when reading the tables.

Non-English speaking residents may contact the water division to obtain a translated copy of this report or receive assistance in the appropriate language as this report contains important information about your drinking water.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien or llame al (707) 257-9521.

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SPECIAL INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Crytosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

AL = Regulatory Action Level
NTU = Nephelometric Turbidity Units is a measure of the clarity of water.
ppm = parts per million, or milligrams per liter (mg/L)
ppb = parts per billion, or micrograms per liter (ug/L)
TT = Treatment Technique
ND = Not detectable at testing limit
UNIT = Unit of measurement
NA = Not Applicable
WTP = Water Treatment Plant
1 grain/gal = 17.1 ppm (mg/L)

MAXIMUM CONTAMINANT LEVEL (MCL) - The highest level of 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 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.

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 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 water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency

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 - 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 a treatment or other requirement, which a water system must follow.

CITY OF NAPA 2003 WATER QUALITY STANDARDS

CONTAMINANT	UNITS	MCL	PHG (MCLG)	NORTH BAY AQUEDUCT SOURCE WATER		LAKE HENNESSEY SOURCE WATER		LAKE MILLIKEN SOURCE WATER		NAPA'S DRINKING WATER	
				AVG LEVEL DETECTED IN RAW WATER	RANGE	AVG LEVEL DETECTED IN RAW WATER	RANGE	AVG LEVEL DETECTED IN RAW WATER	RANGE	AVG LEVEL DETECTED IN DRINKING WATER	RANGE
Primary Inorganic Contaminants											
Fluoride	PPM	2	1	0.1	ND - 0.2	0.12	0.12	ND	ND	0.08	ND - 0.13
Secondary Inorganic Contaminants											
Color	ppm	15	NA	410*	153 - 558	20*	20	ND	ND	ND	ND
Iron	ppb	300	NA	2.5	1.0 - 3.6	0.12	0.12	0.21	0.21	ND	ND
Manganese	ppb	50	NA	0.06	0.04 - 0.07	0.24	0.24	ND	ND	ND	ND
Odor	UNITS	3	NA	9.0	8 - 10	ND	ND	ND	ND	ND	ND
Silver	ppb	100	NA	12.0	ND - 12.2	ND	ND	ND	ND	ND	ND
TDS	ppm	1000	NA	198.3	148 - 346	190	190	89	89	170	170
Specific Conductance	umhos/cm	1600	NA	290.3	178 - 515	280	280	85	85	280	280
Chloride	ppm	500	NA	20.1	12.5 - 39.5	6.3	6.3	4.4	4.4	16	16
Sulfate	ppm	500	NA	28.3	11.9 - 60.9	18	18	3.1	3.1	62	62
Unregulated Contaminants											
Boron	ppb	AL = 1000	NA	172.5	100 - 300	ND	ND	NA	NA	140	140
Vanadium	ppb	AL = 50	NA	10.7	6.0 - 17.0	ND	ND	NA	NA	ND	ND
Other Contaminants											
Sodium	ppm	NA	NA	27.5	10.9 - 49.9	ND	ND	6.6	6.6	NA	NA
Hardness	ppm	NA	NA	99.0	55 - 164	136	122-150	29	29	137	29-164

The City of Napa is committed to providing a safe and reliable supply of quality drinking water that meets all federal and state drinking water standards.

*While the Average Level Detected in Raw Water for Color is above the MCL, we did not have detection for Color in our Drinking Water.

LEAD AND COPPER

This table summarizes the most recent samples taken from individual taps from locations within the water system. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.Therefore, some of our data, though representative, are more than one year old. To be in compliance with the Lead and Copper Rule, the level detected at the 90% percentile must be below the action level. **While the City is in compliance with the rule, please note that there were 6 sites that exceeded the AL for Lead and 3 sites that exceeded the AL for copper.** Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water.Additional information is available from the Safe Drinking Water Hotline (800) 426-4791.

CONTAMINANT	UNITS	AL	PHG	NO. OF SAMPLES COLLECTED	90TH% LEVEL DETECTED	MAJOR SOURCE IN DRINKING WATER
Lead	ppb	15	2	61	10	Internal corrosion of household water plumbing systems;discharges from industrial manufacturers; erosion of natural deposits
Copper	ppm	1.3	0.17	61	0.56	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

PRIMARY DISTRIBUTION SYSTEM (FINISHED WATER) INFORMATION

MICROBIOLOGICAL CONTAMINANTS

COLIFORM BACTERIA

Coliform bacteria are naturally present in the environment, and are an indicator that other, potentially harmful bacteria may be present. Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems. Below is a summary of the monitoring done to verify that the finished drinking water is free of this contaminant.

Minimum Number of Monthly Samples Required:	**80**
Maximum % of Positive Results Allowed (MCLG):	**Less than 5%**
Average Monthly Number of Samples Taken in 2003:	96.8
Total Number of Samples Taken in 2003:	1161
Total % of Positive Samples during Highest Month Detected:	< 1
Total Number of Positive Samples Taken in 2003:	1
Total % of Coliform Bacteria Tested Positive in 2003:	< 1

TURBIDITY

Turbidity has no health effects. However, it can interfere with disinfection and provide a medium for microbial growth. Higher turbidity levels may indicate the presence of disease-causing organisms, including bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and headaches.

TREATMENT PLANT	PERFORMANCE STANDARD (Treatment Technique)	HIGHEST SINGLE DETECTED MEASUREMENT (NTU)	LOWEST MONTHLY % OF SAMPLES MEETING TURBIDITY LIMITS
JAMESON CANYON	0.3 NTU in 95 percent of the measurement taken each month, and shall not exceed 5.0 NTU at any time	0.80	99.9
HENNESSEY		0.38	99.9
MILLIKEN		0.44	99.0

DISINFECTION BYPRODUCTS, RESIDUALS AND BYPRODUCT PRECURSORS

TRIHALOMETHANES (TTHM) AND HALOACETIC ACID (HAA)

Some people who use and drink water containing trihalomethanes and haloacetic acids in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer. To be in compliance with the Disinfection Byproduct Rule, the average level detected for TTHMs and HAAs must be below the MCL.

CONTAMINANT	UNITS	MCL	PHG	LEVEL DETECTED	MAJOR SOURCE IN DRINKING WATER
TTHM	ppb	80	N/A	Average = 69.6 ppb Minimum = ND Maximum = 130.0 ppb	A by-product of drinking water disinfection
HAA	ppb	60	N/A	Average = 45.3 ppb Minimum = ND Maximum = 80.2 ppb	

CHLORINE (Cl_2)

Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

CONTAMINANT	UNITS	MRDL	MRDLG	LEVEL DETECTED	MAJOR SOURCE IN DRINKING WATER
CHLORINE	ppm	4	4	Average = 0.39 Range = ND - 1.33	Drinking water disinfectant added for treatment

CONTROL OF DBP PRECURSORS (TOC)

Total Organic Carbon (TOC) has no health effect. However, TOC provides a medium for the formation of disinfection byproducts. The byproducts include trihalomethanes (TTHMs) and haloacetic acids (HAA). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problem, or nervous system effects, and may lead to an increased risk of getting cancer.

TREATMENT PLANT	UNITS	MCL	PHG (MCLG)	AVERAGE LEVEL DETECTED IN RAW WATER	RANGE	AVERAGE LEVEL DETECTED IN FINISHED WATER	RANGE
JAMESON CANYON	ppm	TT	NA	7.1	2.4 - 16.0	4.9	2.0 - 10.0
HENNESSEY				5.2	4.3 - 6.6	3.9	2.6 - 6.0
MILLIKEN				5.8	3.6 - 7.3	3.4	2.6 - 4.3