



## 2004 WATER QUALITY CONSUMER CONFIDENCE REPORT

### HEADQUARTERS WATER FILTRATION PLANT



Drinking water for the headquarters residential, park support area is derived from the Martin Creek watershed with the use of an infiltration galley and two screened settling boxes. It is then delivered to the Headquarters Filtration Plant via 3 miles of underground water main. The raw water is then filtered through layers of anthracite coal, Monterey sand, pea gravel,  $\frac{3}{4}$ " rock and finally 1  $\frac{1}{2}$ " rock. Final treatment is disinfection prior to be stored in an underground reservoir for coolness.

We test the quality of this water supply for a variety of constituents as required by California State Regulations and the National Park Service (Public Health Service).

This report includes water quality data through December 31, 2004.

**Water Treatment Operators:**  
**Ed Worth, OIT – 01/04 to 11/04**  
**Michael Harris, WTO II – 11/04 to 12/04**



**Source: Martin Creek.**  
(Surface water)

**Public Water System**

**ID. No: 52-10503**

**Date of**

**Report: June 28, 2005**

Chemical water quality of this water source is described on the attached pages.

**The following are definitions of some of the terms used in this report:**

**MAXIMUM CONTAMINANT LEVEL (MCL):** The highest and lowest level of a contaminant allowed in drinking water.

**PRIMARY DRINKING WATER STANDARDS:** Includes MCLs for contaminants that effect health, surface water treatment requirements, and the monitoring and reporting requirements for required constituents.

**PUBLIC HEALTH GOAL (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health as established 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 as established by the Federal Environmental Protection Agency.

**NTU:** Nephelometric Turbidity Unit (a measure of water clarity).

**MG/L:** Milligrams per liter or parts per million.

**UG/L:** Micrograms per liter or parts per billion.

**ND:** Non detectable at testing limit.

**TDS:** Total dissolved solids.

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### Microbiological Water Quality

The Public Health Service (PHS) and California State Department of Health Services (DOHS) Regulations require testing for bacteriological contaminants in the raw creek water (PHS) and distribution system (PHS) (DOHS). The sampling is performed regularly to verify that the water is free from coliform bacteria. The 2004 minimum number of tests required per month for this water system, when a coliform bacterium is not present is 5. All analysis is performed at a California State Certified Laboratory. The Headquarters water system complied with drinking water standards for microbiological quality for all 12 months during 2004. This is a summary:

Minimum number of samples for the presence of coliform bacteria required per year: 60

Number of samples for the presence of coliform bacteria conducted during the last year: 62

Number of samples, which were found to contain coliform bacteria during the year: 0

### Individual tap monitoring for lead & copper

Monitoring of individual taps from locations within the water system is performed for lead & copper. This monitoring is done to verify that the delivered water does not contain lead or copper.

This table summarizes the most recent monitoring for these constituents in milligrams per liter (ug/l):

	<b>Date of most recent samples</b>	<b>Number of samples collected</b>	<b>Number of samples required</b>	<b>Level detected 90th percentile (ug/l)</b>	<b>Action level (ug/l)</b>
<b>LEAD ==&gt;</b>	<b>2003</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>15</b>
<b>COPPER ==&gt;</b>	<b>2003</b>	<b>5</b>	<b>5</b>	<b>35</b>	<b>1,300</b>

## DISINFECTION BYPRODUCTS TESTING RESULTS

These are new constituents for the Headquarters System. Generally speaking, Disinfection Byproducts are the results of over chlorination. Disinfection byproducts testing of water from individual locations in the distribution system is required by Calif. State regulations. The table below summarizes the most recent sampling for disinfection byproducts.

	<b>Year Tested</b>	<b>Level detected (ppb)</b>	<b>MCL (ppb)</b>	<b>PHG</b>
Trihalomethanes	2004	23	80	none
Haloacetic Acids	2004	29	80	none

## Inorganic Chemical Water Quality

These values are expressed in micrograms per liter (ug/l) unless otherwise indicated. Micrograms per liter are equivalent to parts per billion (ppb). The symbol "<" indicates

less than. The letters “ND” mean that no detectable level of this chemical was found in the samples taken. Please note that not all sampling is required annually, so in some cases our results are more than one year old.

<b>Inorganic Chemical</b>	<b>Date of Test</b>	<b>Level Detected</b>	<b>MCL (ug/l)</b>	<b>Notes</b>
Aluminum	01/03	ND	1000	
Antimony	01/03	ND	6	
Arsenic	01/03	ND	50	
Asbestos	10/96	ND	7 mfl	
Barium	01/03	0.0031	1000	
Beryllium	01/03	ND	4	
Cadmium	01/03	ND	5	
Chromium	01/03	ND	50	
Cyanide	01/03	ND	200	
Fluoride	10/95	ND mg/l	2 mg/l	MCLG=1mg/l
Iron	01/03	ND	300	
Manganese	01/03	ND	50	
MTBE	08/02	ND	13	
Mercury	01/03	ND	2	
Nickel	01/03	ND	100	
Nitrate	05/04	ND	45 mg/l	
Nitrite	05/04	ND	1 mg/l	
Selenium	01/03	ND	50	
Thallium	01/03	ND	2	MCLG = 0.5
Zinc	01/03	ND	5000	

### **Radiological Water Quality**

This is the Result of water sample analysis performed to measure radiological constituents. Headquarters water system is in compliance if the level does not exceed 5 Pico Curies per liter (pCi/l). Note: Pico Curies are the units used for the measurement of radiological activity.

Results of most recent test for radiological constituents. <1.0 pCi/l Date: 10/96

**General Mineral and Physical Water Quality**

The following constituents are not considered a health hazard but are monitored to determine consumer acceptance quality:

<b>Name of constituent</b>	<b>Date of test</b>	<b>Level detected</b>	<b>MCL</b>
Apparent-Color (unfiltered)	10/95	10	15 units
Copper	10/95	0.017	1000 ug/l (PHG=170 ug/l)
Odor - Threshold	01/03	ND	5 T.O.N.
MBAS(foaming agents)	01/03	ND	0.5 mg/l
Turbidity	DAILY	0.08 Avg.	.50 NTU
Zinc	10/95	0.014	5000 ug/l
PH	DAILY	7.11 Avg.	

<b>Name of Constituent</b>	<b>Date of Test</b>	<b>Level Detected</b>	<b>Recommended Level</b>	<b>Short Term Upper Level</b>
Total Dissolved solids	01/03	54	500 mg/l	1,500 mg/l
Specific	DAILY	51 AVG.	900	2,200



Conductance			ohms/cm	ohms/cm
Chloride	01/03	.49	250 mg/l	600 mg/l
Sulfate	01/03	.90	250 mg/l	600 mg/l
Hardness	01/03	19	none	none
Sodium	01/03	54	1500	1500

### GENERAL INFORMATION ON DRINKING WATER

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 individuals, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The USEPA/Center for disease control guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1.800.426.4791.

### Surface Water Treatment Compliance Information

The highest single daily turbidity measurement for the entire year was 0.49 NTU, measured in February 2004. Regulations require treated water from the type of filtration system provided at this water system to meet a standard of 0.5 NTU or less, in 95% of the samples taken during the month. The yearly average was 0.08 NTU. The treatment plant met the standard for all months in 2003.

### SOURCE WATER ASSESSMENT

A source water assessment has been completed for the water source serving the Headquarters water system. The source is considered to be most vulnerable to activities not associated with any detected contaminants. The Martin Creek watershed

is situated on National Forest land; therefore it is susceptible to managed forest activities.

A copy of the complete assessment may be viewed at:

DHS Valley District Office  
415 Knollcrest Drive, Suite 110  
Redding, Ca. 96002  
Richard Hinrich, 530.224.4867

or at

Lassen VNP Headquarters  
Mineral, Ca. 96063  
Graham A. Dobson, 595.4444  
Extension 5127

If you have any questions or inquiries in regard to this report, please contact Graham A. Dobson at 595-4444 Ext. 5127.

Prepared by Graham A. Dobson, WTO  
June 29, 2004

