

# Carpinteria Valley Water District

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Dear Carpinteria Valley Resident,

Carpinteria Valley Water District is pleased to present you with this Annual Drinking Water Consumer Confidence Report for the year 2003. Operating under a water supply permit issued by the California Department of Health Services, the Carpinteria Valley Water District supplies water to about 18,500 people at their homes and businesses throughout the Valley. Half of the District's water is *surface water* that comes from Lake Cachuma, including any water delivered to Lake Cachuma through the State Water Project facilities. To protect the quality of this water source, only light recreation is allowed on Lake Cachuma. The surrounding watershed is also protected. The balance of the District's water comes from *groundwater* pumped from four wells in the Carpinteria Valley Groundwater Basin. Small amounts of chlorine are added at the wells to ensure disinfection.

Lake Cachuma surface water is treated at the City of Santa Barbara's Cater Treatment Plant. After treatment it flows toward the Carpinteria Valley in a distribution system that includes the **Ortega Reservoir** at the western end of the Valley in Summerland, and the **Carpinteria Reservoir** located in the eastern end of the Valley. These reservoirs met health standards of the day when constructed without covers in the early 1950's. Current water works standards, however, in order to prevent contamination from birds, wind-blown material, and vandalism, do not allow for the construction of uncovered reservoirs containing treated drinking water.


The District in 2003 covered and improved the Carpinteria Reservoir at a cost of about \$6.2 million. The Ortega Reservoir is expected to be covered by the end of 2006 at an estimated cost to the District of \$5.4 million. In the meantime, to minimize the problems caused by the lack of a reservoir cover at Ortega, Montecito Water District, permit holder for reservoir, takes several precautions. The reservoir is surrounded with six-foot chain link fences and inspected twice a day 365 days per year. Water entering the reservoir contains chlorine residual, and to ensure disinfection, additional amounts of chlorine are added when water leaves the reservoir. Every year the reservoir is emptied and cleaned. Should a water quality problem arise due to this open reservoir, both Carpinteria Valley and Montecito Water Districts are prepared to take remedial operational and maintenance action as set forth in each District's operational and monitoring plans on file with the Department of Health Services.

The U.S. Environmental Protection Agency (EPA) recently developed a new drinking water standard for a group of five Haloacetic acids (HAA5) and established a more stringent standard for a group of four Trihalomethanes (TTHM). Water systems were required to meet these new standards starting in January of 2002. The District applied for and received a two-year compliance extension until the end of 2003. The extension was conditioned with an EPA developed construction compliance schedule for two major capital projects to help the District meet the new standards. The first project, a new **well and filtration plant**, is expected to be completed by August of 2004 at a cost of about \$2 million. The second, a new **three million gallon storage tank and distribution lines** connected to the District's wells is scheduled for construction to begin by the end of 2004 and estimated to cost \$6.2 million. In the meantime, the District must continue to meet all of the monitoring requirements and notify the public if any standard is exceeded.

The District also remains concerned about the potential for a nitrate problem to evolve in its groundwater. In 1996 the District adopted an AB 3030 Groundwater Management Plan, and with the voluntary cooperation of many growers began a systematic monitoring program of private irrigation wells throughout the District. Results of this monitoring program continue to indicate no significant problem for the District's groundwater.

Thank you for taking the time to review this report. If you have any questions or concerns please feel free to call Bob Mc Donald, District Engineer, or myself at the District office at 684-2816.

Sincerely,



Charles B. Hamilton  
General Manager

## Questions & Answers about your drinking water....

### **Is my drinking water pure?**

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. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

### **Is there a risk to Immuno-compromised persons?**

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. 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 at (1-800-426-4791).

### **How do contaminants get into my water?**

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 from human activity.

### **What types of contaminants could be found in my drinking water?**

Contaminants that may be present in source water (prior to treatment) 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, animal waste, fertilizer and farming operations.

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.

### **How can I know that my drinking water is safe?**

In order to ensure that tap water is safe to drink, USEPA and the California Department of Health Services (Department) 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.

## DEFINITIONS

**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 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 Goal (MRDLG)** The level of a disinfectant (chlorine) added for water treatment at which there is no known or expected risk to health. MRDLGs are set by the USEPA.

**Maximum Residual Disinfectant Level (MRDL)** The level of a disinfectant (chlorine) added for water treatment that may not be exceeded at the customer's tap.

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

**Treatment Technique (TT)** A required process intended to reduce the level of contaminant in drinking Water.

**Primary Drinking Water Standards (PDWS)** MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

**Secondary Drinking Water Standards (SDWS)** MCLs for contaminants that effect taste, odor, or appearance of drinking water. Secondary Contaminants are not based on health effects at MCL levels.

**Other Constituents Monitored** Some of this information was collected from July 1997 to December 1998 as part of a federal study to evaluate disinfectants and disinfection by-products.

### Legend

Symbol "<" denotes 'less than'

µg/L Micrograms per liter (parts per billion)

mg/L Milligrams per liter (parts per million)

ND Not detected at testing limit

NTU Nephelometric Turbidity Units

PCi/L Picocuries per liter  
(a measure of radiation)

µmho/cm Micro Ohms per centimeter

NA Not Analyzed

None None Required

### CUSTOMER VIEWS WELCOME:

If you are interested in learning more about Carpinteria Valley Water District and water quality, or participating in the decision making process, opportunities are available. You can simply come into the District offices and speak to any one of the employees, or call the office at 684-2816. Board of Directors meetings are normally held on the second or third Wednesday of the month beginning at 4 pm in the Board room at 1301 Santa Ynez Ave.



## What about Radon ?

Radon is a radioactive gas that you can't see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call your State radon program or call EPA's Radon Hotline (800-SOS-RADON).

Currently there is no MCL for Radon in Drinking water but the District has tested all of its ground water sources and found levels upto 963 pCi/L but on average 487 pCi/L. Possible future MCL may be set by the EPA at as high as 4000 pCi/L or as low 300 pCi/L.

### En Español

Este folleto le muestra como es que la oficina de la *Carpinteria Valley Water District* continúa proveyéndolo a usted de un servicio de agua potable y segura. Si usted tiene preguntas acerca del agua del Distrito, por favor llame a Norma Rosales, a la oficina de *Carpinteria Valley Water District*, al teléfono (805) 684-2816, durante las horas de 8:00 a.m. a 5:00 p.m.

# Carpinteria Valley Water District

## Annual Water Quality Report for 2003

	SUBSTANCE/(Parameter)	Public Health Goal (MCLG)	Maximum Contaminant Level (MCL)	SURFACE WATER (CATER TREATMENT)		GROUNDWATER (DISTRICT WELLS)		Likely Source of Substance
				Range Detected	**Reporting Value	Range Detected	**Reporting Value	
<b>PRIMARY STANDARDS</b>	<b>Monitored Before Distribution</b>							
	Turbidity (NTU)	None	TT = 1 NTU TT=Percentage of samples <0.3 NTU	0.02-0.13	0.08 100%	NA	NA	Natural river sediment; soil run-off
	Arsenic ( $\mu\text{g/L}$ )	None	50	ND-4.0	1.1	ND	ND	Erosion of natural deposits
	Aluminum (mg/L)	0.6	1	0.021-0.40	0.147	ND-0.10	0.025	Residue from some water treatment processes
	Barium (mg/l)	2	1	0.052	0.052	ND-121	30.30	Erosion of natural deposits
	Chromium (Total Cr) ( $\mu\text{g/l}$ )	(100)	50	ND	ND	ND-1	0.30	Natural geology
	Nitrate as Nitrate (mg/L)	45	45	ND	ND	0.9-17.5	9.2	Natural deposit, fertilizer
	Mercury ( $\mu\text{g/L}$ )	1.2	2	ND	ND	ND-0.02	0.02	Erosion of natural deposits
	Fluoride (mg/l)	1	2	ND	ND	0.3-0.4	0.4	Erosion of natural deposits
	Gross Alpha Particle Activity (pCi/L)	None	15	1.6-2.9	1.69	ND-6.7	1.6	Erosion of natural deposits
	Beta particles and photon emitters (pCi/L)	0	50	1.6-4.3	2.68	NA	NA	Decay of natural deposits
	Radon 222 (pCi/L)	None	None	ND	ND	190-963	487.0	Decay of naturally occurring radium
	<b>Monitored in the Distribution System</b>							
	Total Coliform Bacteria	0	< 1 sample per	NA	NA	ND	ND	Naturally present in the environment
	Total Trihalomethanes ( $\mu\text{g/L}$ )	NA	80	NA	NA	ND-121	76.0	By-product of water chlorination
Haloacetic acids - HAA 5 ( $\mu\text{g/L}$ ) ***	NA	60	NA	NA	ND-119.0	73.7	By-product of water chlorination	
Chlorine Residual (Free chlorine) (mg/l)	MRLDG as $\text{CL}_2$	MRLD as $\text{CL}_2$	NA	NA	1.09-1.15	1.2	Used in disinfection of potable water	
<b>LEAD/ COPPER RULE</b>	<b>Monitored at the Customer's Tap</b>							
		33 sites sampled.		0 sample exceeded action level for copper; 0 samples exceeded the action level for lead				
	Lead ( $\mu\text{g/L}$ )	2	15 (AL)	NA	NA	ND	ND	Corrosion of household water
Copper (mg/L)	0.17	1.3 (AL)	NA	NA	0.05-0.13	0.17	Plumbing and erosion of natural deposits.	
<b>SECONDARY STANDARDS</b>	<b>Monitored Before Distribution</b>							
	<i>Aesthetic Standards Established By the State of California, Department of Health Services</i>							
	Chloride (mg/L)	None	500	20-23	22	25-61	42.30	Runoff/Leaching from natural deposits
	Iron ( $\mu\text{g/L}$ )	None	300	ND	ND	ND-180	53.3	Erosion of natural deposits
	Manganese ( $\mu\text{g/L}$ )	None	50	ND	ND	ND-180	87.5	Erosion of natural deposits
	Color (units)	None	15	ND	ND	0-20	8.00	Naturally-occurring organic materials
	Threshold Odor Number at 60 °C	None	3	6-25	15	ND-1	0.30	Naturally-occurring organic materials
	Sulfate (mg/L)	None	500	238-298	263	82-145	117.30	Runoff/Leaching from natural deposits
	Specific Conductance ( $\mu\text{mhos}$ )	None	1600	794-1000	895	830-952	877.00	Substances that form ions in water
	Total Dissolved Solids (mg/L)	None	1000	546-888	652	500-590	537.50	Runoff/Leaching from natural deposits
	pH (units)	None	None	7.95-8.20	8.11	7.4-7.5	7.42	Runoff/Leaching from natural deposits
	Total Hardness as $\text{CaCO}_3$ (mg/L)	None	None	333-403	372	290-375	347.50	Runoff/Leaching from natural deposits
	Total Alkalinity as $\text{CaCO}_3$ (mg/L)	None	None	159-187	285	260-320	292.50	Runoff/Leaching from natural deposits
	Calcium (mg/L)	None	None	72-91	80	70-110	97.00	Runoff/Leaching from natural deposits
	Magnesium (mg/L)	None	None	34-53	41	19-29	25.80	Runoff/Leaching from natural deposits
	Sodium (mg/L)	None	None	34-50	43	35-78	53.50	Runoff/Leaching from natural deposits
Potassium (mg/L)	None	None	1.9-2.9	2.3	1-2.5	1.40	Runoff/Leaching from natural deposits	
Methyl Tertiary-Butyl Ether (MTBE) ( $\mu\text{g/L}$ )	13	13	ND	ND	ND	ND	Leaking underground tanks; Discharge from petroleum process plants	
<b>*UCMR</b>	<b>Additional Parameters Analyzed</b>							
	Hexavalent Chromium ( $\mu\text{g/L}$ ) CR 6	None	None	ND	ND	ND-0.1	0.03	Erosion of natural deposits
	Boron ( $\mu\text{g/L}$ )	None	1000 (AL)	280-480	340.0	0-200	75	Erosion of natural deposits
	Vanadium ( $\mu\text{g/L}$ )	None	50 (AL)	ND-4.9	2.2	ND-3.1	0.8	Erosion of natural deposits
<b>Other Constituents monitored</b>	Control of DBP precursors- TOC (mg/L)	NA	TT	2.59-3.22	2.9	NA	NA	TOC has no known adverse health effects but provides a medium for the formation of disinfection by-products. Sources include plant decay and other natural processes.

**Note :** Listed in the table above are substances detected in the District's drinking water or of special interest to certain consumers. Not listed are approximately 135 substances which were below the laboratory detection levels. The District received an extension to comply with new Federal drinking water standards for disinfection by-products. As can be seen on Haloacetic Acids the District did not meet the new standards during 2003. Every effort is being made to comply with these new standards by the end of 2004

\* UCMR -Unregulated Constituents Monitoring Rule was promulgated by the EPA to study other constituents.

\*\* Reporting values are determined by methods set by the State depending on the constituent. Most constituent reporting values are determined by simple averaging. For more information on a specific constituent contact the District.

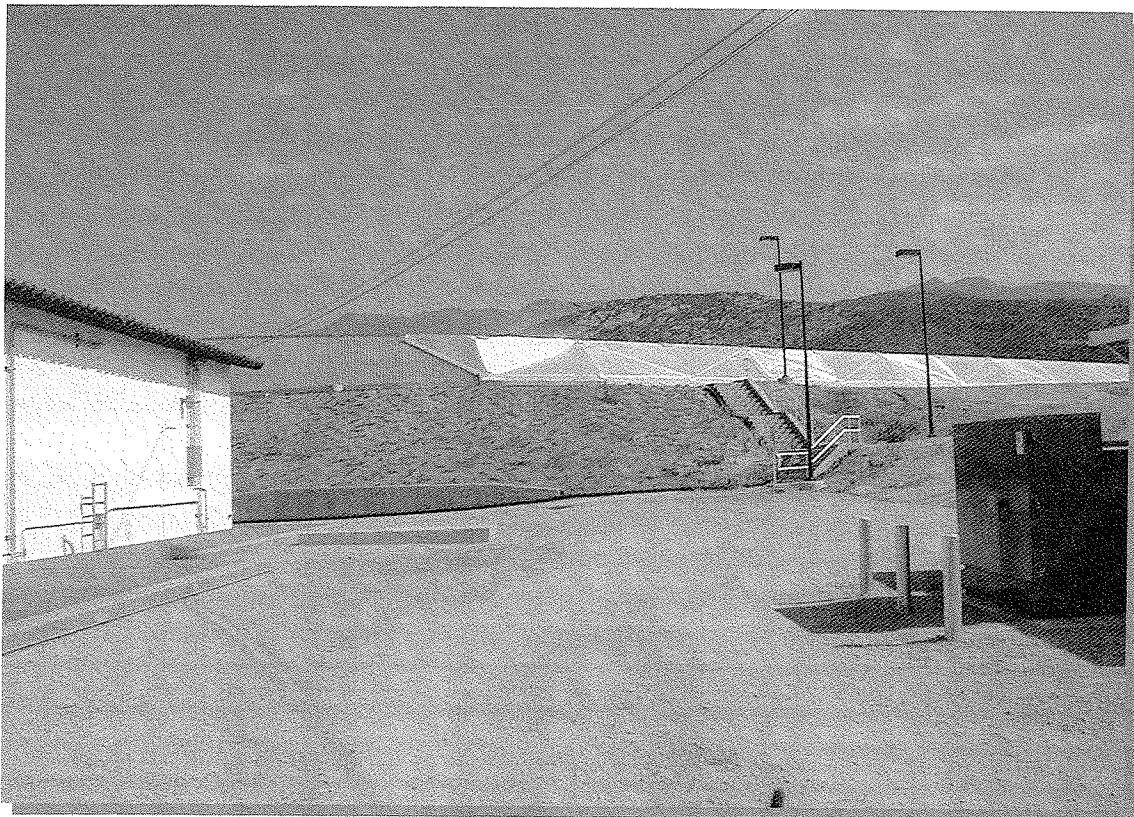
\*\*\* Disinfection by-products including Haloacetic acids (Haa5) form when naturally occurring organic materials found in potable water react with disinfectants such as chlorine. In particular elevated Haa5 levels in drinking water pose the following health risk: Some people who drink water containing Haa5 in excess of the MCL over many years may develop an increased risk of getting cancer.

Carpinteria Valley Water District  
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Carpinteria, CA 93014

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# 2003 Carpinteria Valley Water District Drinking Water Quality Report

Vital Information on Water Quality for Residents of the Carpinteria Valley



## **What's happening at the Carpinteria Reservoir...**

Carpinteria Reservoir Cover Project has been completed. Shown on the left is a photo of the new roof over the Carpinteria Reservoir. Additional improvements that were made to the facility include valve, piping and control improvements. The water quality has greatly improved in the reservoir since the project was completed.