



Carpinteria Valley Water District  
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Carpinteria, CA 93014

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## Carpinteria Valley Water District 2005 Drinking Water Quality Report

Vital Information on Water Quality for Residents of the Carpinteria Valley



### What's happening at the Storage Tank Site...

Shown on the left is a photo of the construction underway at the Rancho Monte Alegre Storage Tank site. The project will help assure that mandated water quality standards are met.

### 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 up to 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.



## Carpinteria Valley Water District

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GENERAL MANAGER  
Charles B. Hamilton

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

July 1, 2006

Dear Carpinteria Valley Resident,

Carpinteria Valley Water District is pleased to present you with this Annual Drinking Water Consumer Confidence Report for the 2005 calendar year. Operating under a water supply permit issued by the California Department of Health Services, the Carpinteria Valley Water District supplies water to about 19,000 people at their homes and businesses throughout the Valley. Half of the District's water is **surface water** that comes from Lake Cachuma, including 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 supply comes from **groundwater** pumped from five wells in the Carpinteria Valley Groundwater Basin.

Lake Cachuma surface water is treated at the City of Santa Barbara's Cater Treatment Plant. It then flows toward the Carpinteria Valley through a federally owned distribution system including the South Coast Conduit, the **Ortega Reservoir** at the western end of the Valley in Summerland, and the **Carpinteria Reservoir** located in the eastern end of the Valley. Both reservoirs are essential for the storage and distribution of water in the Carpinteria Valley. The District also uses this federally owned system in combination with its own distribution system to deliver locally produced groundwater to its customers.

Groundwater produced from the Carpinteria Groundwater Basin is of high quality and requires addition of only small amounts of chlorine for disinfection and in some cases direct filtration for manganese removal. The groundwater supply in Carpinteria is beneficial to Carpinteria Valley's water quality and water supply reliability. The groundwater contains almost no organics and thus is excellent for blending with surface water sources to reduce disinfection byproduct formation. The groundwater is readily available and locally accessible if other water supplies become compromised.

To ensure that the Carpinteria Groundwater Basin is protected the District conducted a survey of potential contaminating activities and submitted it to the Department of Health for its Drinking Water Source Assessment and Protection Program.

In the meantime, the District continues to meet all monitoring requirements and drinking water standards with exception of the D/DBP violation described in this report. Thank you for taking the time to review this report. If you have any questions or concerns please feel free to call Bob McDonald, District Engineer, or myself at the District office at 684-2816.

Sincerely,

Charles B. Hamilton  
General Manager

### Notice about Disinfection Byproduct Rule Violation

The U.S. Environmental Protection Agency (EPA) recently developed a new drinking water standard for Haloacetic acids and established a more stringent standard for a group of four Trihalomethanes. Both compounds are common disinfection byproducts (dbps) in drinking water. The new rule requires that the 4 quarter average of samples taken throughout the District not exceed 80 parts per billion (ppb) for total Trihalomethanes (TTHM) and 60 parts per billion (ppb) for total Haloacetic Acids (HAA5). The new rule also requires that the average free chlorine level not exceed 4 parts per million (ppm). This Rule is referred to as the Stage 1 Disinfectant and Disinfection Byproduct Rule (D/DBP Rule).

The District violated the D/DBP Rule in the fourth quarter of 2005 in which the annual average for TTHM was approximately 85 ppb. You should have received a notice in February regarding this violation. The failure was a result of heavy reliance on water from Lake Cachuma during the winter of January 2005. The heavy rains of that winter created, in Lake Cachuma water, a higher than normal level of Total Organic Carbon (TOC) which is a precursor in the formation of disinfection by products such as TTHMs. Currently aggressive groundwater blending is being implemented to offset higher TOC levels in surface waters. The District has been in compliance of the D/DBP Rule for the first two quarters of 2006. The District staff is confident that as long as it continues to blend at current levels the maximum contaminant level for TTHM can be met and the District will remain in compliance to the current rule.

## 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).

#### 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.

**Surface Water:** All water open to the atmosphere and subject to surface runoff such as lake, reservoir and river. Lake Cachuma and Gibraltar Reservoir are treated at the William B. Cater Water Treatment Plant.

**Groundwater:** All subsurface water are found underground in cracks and spaces in soil, sand and rock. The area where water fills these spaces is the saturated zone, the top of this zone is called the water table.

**For Water Softeners:** The District's water has a hardness range of 19 to 25 grains per gallon. One grain per gallon equals 17 milligrams per liter.

# Carpinteria Valley Water District

## Annual Water Quality Report for 2005

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 = 95% of samples <0.3 NTU	0.02 - 0.07	0.07	1 - 1.3	1.13	Natural river sediment; soil run-off
Aluminum (mg/L)	0.6	1	.011 - .240	0.129	ND - .010	0.0025	Erosion of natural deposits
Barium (mg/l)	1 (2)	1	ND - 0.04	0.04	ND - 0.1	0.033	Erosion of natural deposits
Copper (mg/l)	0.17	1.3 (AL)	NA	NA	ND - .059	0.015	Erosion of natural deposits; leaching of wood preservatives
Fluoride (mg/l)	1	2	0.33 - 0.57	0.4	0.25 - 0.38	0.32	Erosion of natural deposits
Nickel (µg/L)	12	100	ND	ND	ND - 11	2.75	Erosion of natural deposits; discharge from metal factories.
Nitrate as Nitrate NO3 (mg/L)	45	45	ND	ND	ND - 27	11.75	Natural deposit, fertilizer
Nitrite as Nitrogen N (mg/L)	10	10	ND	ND	ND - 6.1	2.6	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radon 222 (pCi/L)	None	None	ND	ND	190 - 963	487	Decay of naturally occurring radium
Uranium (pCi/L)	0.43	20	2.40 - 2.70	2.55	NA	NA	Erosion of natural deposits
Control of DBP precursors- TOC (mg/L)	NA	Treatment Requirement	2.30 - 2.95	2.53	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.
<b>Monitored in the Distribution System</b>							
Total Coliform Bacteria	0	< 1 sample per month positive	-	-	ND	ND	Naturally Present in the Environment
Total Trihalomethanes (µg/L)	NA	80	-	-	48.6 - 100.9	85.1	By-product of water chlorination
Haloacetic acids - HAA5 (µg/L) ***	NA	60	-	-	13.3 - 86.5	36.8	By-product of water chlorination
Chlorine Residual (Free chlorine) (mg/l)	MRLDG as CL <sub>2</sub> 4.0	MRLD as CL <sub>2</sub> 4.0	-	-	.8 - 1.8	1.09	Used to disinfect potable water
<b>LEAD/ COPPER RULE</b>							
<b>Monitored at the Customer's Tap</b> 33 sites sampled. 0 samples exceeded the action level for copper. 0 samples exceeded the action level for lead							
Lead (µg/L)	2	15 (AL)	NA	NA	ND - 7.0	<5	Corrosion of household water plumbing and erosion of natural deposits
Copper (mg/L)	0.17	1.3 (AL)	NA	NA	ND - .180	<0.05	
<b>SECONDARY STANDARDS</b>							
<b>Monitored Before Distribution</b> Aesthetic Standards Established By the State of California, Department of Health Services							
Zinc (mg/L)	None	5	NA	NA	ND - .34	0.085	Runoff/Leaching from natural deposits; industrial wastes
Chloride (mg/L)	None	500	15 - 29	19	25 - 64	44.25	Leaching of natural deposits
Iron (µg/L)	None	300	ND	ND	ND - 180	90.3	Leaching of natural deposits
Manganese (µg/L)	None	50	ND	ND	ND - 21	5.25	Naturally-occurring organic materials
Sulfate (mg/L)	None	500	208 - 336	263	95 - 150	123.75	Substances that form ions in water
Specific Conductance (µmhos)	None	1600	748 - 1015	875	81 - 980	712.75	Runoff/Leaching from natural deposits
Total Dissolved Solids (mg/L)	None	1000	536 - 716	628	510 - 610	555	Runoff/Leaching from natural deposits
Threshold Odor Number at 60°C (TON)	NA	3	6 - 15	9	1	1	Naturally-occurring organic materials
<b>Other Constituents monitored</b>							
pH (units)	None	None	7.83 - 8.37	8.03	7.7 - 7.8	7.78	Varies in water
Total Hardness as CaCO3 (mg/L)	None	None	332 - 436	374	320 - 410	362.50	Leaching of natural deposits
Total Alkalinity as CaCO3 (mg/L)	None	None	166 - 188	179	260 - 340	287.50	Leaching of natural deposits
Calcium (mg/L)	None	None	68 - 100	88	92 - 130	113	Leaching of natural deposits
Magnesium (mg/L)	None	None	30 - 52	38	26 - 31	28.50	Leaching of natural deposits
Sodium (mg/L)	None	None	38 - 48	37	41 - 90	64.50	Leaching of natural deposits
Potassium (mg/L)	None	None	2.0 - 2.9	2.4	1.9 - 2.3	2.08	Leaching of natural deposits
Boron (µg/L) *	None	1000 (AL)	260 - 270	265	0 - 190	50	Erosion of natural deposits
Vanadium (µg/L) *	None	50 (AL)	ND-4.9	2.2	ND	0	Erosion of natural deposits

**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.

\* 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) and Total Trihalomethanes (TTHM) form when naturally occurring organic materials found in potable water react with disinfectants such as chlorine. In particular, elevated HAA5 or TTHM levels in drinking water pose the following health risk: Some people who drink water containing HAA5 or TTHM in excess of the MCL over many years may develop an increased risk of getting cancer.

The State allows us to monitor for some contaminants less than once per year because the concentration do not change very frequently. Some of the data shown, although representative of your water, is more than one year old.

## 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 third or fourth Wednesday of the month beginning at 4 pm in the Board room at 1301 Santa Ynez Ave.