

# Santa Barbara Water

June 2005



City of Santa Barbara Annual Water Quality Report

## Improving Your Water System

The City continues to construct improvements to ensure that our customers receive high quality water that meets all State and Federal drinking water regulations. We have many important projects that will improve water quality and service reliability, and increase fire protection.

### Cater Water Treatment Plant

The multi-million dollar improvement and upgrade project at our William B. Cater Water Treatment Plant was completed in December of 2004, after two years of challenging construction. The improvements included rehabilitation of all the filters, new solids handling basins, construction of an annex building to house new treatment feed systems, new electrical systems, and an emergency generator to ensure uninterrupted treatment operations. The plant remained in service through the entire project, treating water for the residents of Santa Barbara, Montecito, Summerland, and Carpinteria.

### Sheffield Reservoir Project

The Sheffield Reservoir Project is half way through its two-year construction phase. The project involves the removal of the old open-air reservoir, the construction of two temporary above-ground steel tanks for interim storage, and construction of two permanent 6.5 million gallon buried concrete tanks. The new tanks will be covered by a neighborhood passive

open space with native landscaping. The two permanent tanks are completed and were placed in service in December. The wet winter has delayed the project somewhat, but we are looking forward to having this important project completed early in 2006.

### Groundwater Projects

We have completed a pilot study identifying treatment improvements to our Ortega Groundwater Treatment Plant. The Ortega Treatment Plant was constructed in the 1970's to treat the City's main supply of groundwater, an important part of the City's water supply program. We expect to complete final design this year and start construction in 2006. Additionally, we have completed the drilling of two new groundwater

wells, one located in the San Roque area and the other near Santa Barbara High School. These wells will play an important role in meeting the City's seasonal water demands and as emergency water sources.

### Water Main Replacement Project

Our ongoing water main replacement program will get underway again this month. This year, we will be replacing 32,000 feet (a little over 6 miles) of old, deteriorated and undersized water mains throughout the City. We will also be constructing many new improvements designed to improve distribution system water quality, fire protection and service reliability. This project is scheduled for completion in 2006.



Cater Water Treatment Plant Improvement and Upgrade Project is complete.

## Special Info Available

*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 from their health care providers about drinking water.*

*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 1-800-426-4791 or [www.epa.gov/safewater/](http://www.epa.gov/safewater/).*

## Safe Drinking Water Hotline and Web Site

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 at 1-800-426-4791, or by visiting their website at [www.epa.gov/safewater/](http://www.epa.gov/safewater/).



## Drinking Water Treatment Regulations

The City of Santa Barbara gets most of its drinking water from Lake Cachuma and Gibraltar Reservoir. Occasionally well water is also supplied to City water customers. 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. Contaminants that may be present in the water source include:

- Microbial contaminants such as bacteria and viruses that may come from wildlife or human activity.
- Inorganic contaminants such as salts and metals that can be naturally-occurring or result from human activities
- Radioactive contaminants which can be naturally occurring.
- 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 use.

In order to ensure that tap water is safe to drink, federal and state regulations limit the amount of certain contaminants in public water systems. Regulations also establish limits for contaminants in bottled water that must provide protection for public health.

*In 2004, as in previous years, the City of Santa Barbara water met all primary state and federal standards for drinking water. All of the water from Lake Cachuma and Gibraltar Reservoir is treated at the Cater Water Treatment Plant before being distributed to customers. If you are in another community and have questions about the water quality, call their water department and ask for a copy of their Consumer Confidence Report.*

# State of the Water Supply



## What a Difference a Month Makes

In December 2004, the City was preparing to declare a Stage 1 Drought Condition due to several years of dry weather. By January 2005, winter rains had filled and spilled Gibraltar Reservoir and Lake Cachuma, putting an end to near-term concerns about drought

shortages. With full reservoirs, the City will now rely mostly on surface water from Gibraltar and Cachuma, reserving groundwater and most of our State Water until reservoir levels begin to get low again. In the event of a future severe drought, the City's desalination facility remains available for reactivation.

## So...Conservation Is No Longer Important, Right?

Wrong! We depend on water conservation as a part of our water supply. The water you save now will help get us through the next drought. Conservation is also cheaper in many cases than buying new water. That's why the City has an active water conservation program. Call us at (805) 564-5460 with questions about how to save water, request brochures on indoor and outdoor water conservation, or to schedule your free water check-up. Or go on line to [www.SantaBarbaraCA.gov](http://www.SantaBarbaraCA.gov) and click on "learn about water conservation" or [www.sbwater.org](http://www.sbwater.org) for the latest information on water conservation.

## Future Drinking Water Regulations and You

Federal drinking water standards are implemented and enforced by the United States Environmental Protection Agency (EPA). The City must, without exception, continually meet these regulations to ensure the delivery of safe drinking water to our customers. Through the use of expanding computerized and analytical technologies, the EPA continues to refine drinking water standards. Upcoming regulations on Disinfection By-Products, Arsenic, MTBE, and Unregulated Contaminant Monitoring will require more and more of our financial and operational resources than ever before. Learn more about the EPA and their role in drinking water at <http://www.epa.gov/safewater>.



## Limited Potential for Contamination

The City has evaluated the vulnerability of our water supplies to contamination. For potential contaminants at Lake Cachuma, use of two stroke engines contributes MTBE to the water. Gibraltar Reservoir's remote location, and the restriction of access to the reservoir limit opportunities for contamination. City groundwater supplies are generally located deep beneath the surface. Nonetheless, there is the potential for contaminants from surface sources, such as gasoline stations and dry cleaners to reach City water supplies. All water sources are carefully monitored to ensure that pollutants are not present at levels exceeding state and federal standards. For more information, call 568-1008.



# 2004 City Drinking Water Quality Report

## 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 (MCLs)

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

### Maximum Residual Disinfectant Level (MRDL)

The level of a disinfectant (chlorine) added for water treatment that may not be exceeded at the consumer'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 and MRDLs 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. Contaminants with SDWS do not affect the health at MCL levels.

### Unregulated Contaminant Monitoring Regulations (UCMR)

Data generated by the new UCMR will be used to evaluate and prioritize contaminants on the Drinking Water Contaminant Candidate List, a list of contaminants EPA is considering for possible new drinking water standards. Also known as "State Regulated Contaminants with No MCLs".

## Legend

<b>µg/L</b>	Micrograms per liter (parts per billion)
<b>mg/L</b>	Milligrams per liter (parts per million)
<b>ND</b>	Not detected at testing limit
<b>NTU</b>	Nephelometric Turbidity Units
<b>pCi/L</b>	Picocuries per liter (a measure of radiation)
<b>µmho/cm</b>	Micromhos per centimeter
<b>DBP</b>	Disinfection Byproducts
<b>NA</b>	Not applicable or no standard

## Cater Water Treatment Plant

SUBSTANCE (Parameter)	Public Health Goal	Maximum Contaminant Level	Range Detected	Reporting Value	Major Sources in Drinking Water
<b>PRIMARY STANDARDS</b>					
<b>Regulated Contaminants with Primary MCLs or MRDLs</b>					
<i>Microbiological Contaminants</i>					
Total Coliform Bacteria	0	5% of monthly samples	0% – 0.55%	0.55%	Naturally present in the environment
Turbidity (NTU)	NA	TT=1 NTU	0.02 – 0.14	0.14	Natural river sediment/soil run-off
		TT= 95% of samples ≤ 0.30 NTU	NA	100%	
<i>Inorganic Contaminants</i>					
Fluoride (mg/L)	1	2	0.17 – 0.42	0.33	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Aluminum (µg/L)	600	1000	14 – 310	64	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (µg/L)	NA	50	ND – 3.0	2.0	Erosion of natural deposits
Barium (mg/L)	2	1	NA	.058	Erosion of natural deposits
Uranium (µg/L)	NA	30	NA	2.8	Erosion of natural deposits
<i>Disinfection Byproducts, Residuals, and Byproduct Precursors</i>					
Control of DBP Precursors–TOC (mg/L)	NA	Treatment Requirements	2.63 – 3.93	3.42	Total Organic Carbon (TOC) has no health effects. However, it provides a medium for the formation of disinfection byproducts. Various natural and manmade sources.
Total Trihalomethanes (µg/L)	NA	80	25 – 110	62.3	By-product of drinking water chlorination
Haloacetic acids (µg/L)	NA	60	6.2 – 21	11.1	By-product of water disinfection
Disinfectant-Free Chlorine Residual (mg/L)	MRDLG as Cl <sub>2</sub> 4.0	MRDL as Cl <sub>2</sub> 4.0	ND – 1.30	0.44	Drinking water disinfectant added to treatment

## UCMR

### Unregulated Contaminants

Boron (µg/L)	NA	1000 (AL)	280 – 480	340	
Vanadium (µg/L)	NA	50 (AL)	ND – 4.9	2.2	

### Lead/Copper Rules

Monitored at the Customer's Tap  
Number of sites exceeded Action Level = 0

Copper (mg/L)	0.17	1.3 (AL)	ND – 0.190	0.097	Copper and Lead: Internal corrosion of household plumbing systems and erosion of natural deposits.
Lead (µg/L)	2	15 (AL)	ND – 2.7	1.7	Copper: leaching from wood preservatives Lead: discharges from industrial manufacturers

## SECONDARY STANDARDS

*Aesthetic Standards Established By the State of California, Department of Health Services.  
No adverse health affects from exceedence of standards.*

### Regulated Contaminants with Secondary MCLs

Threshold Odor Number at 60 °C	NA	3	10 – 25	14	Naturally occurring organic materials
Chloride (mg/L)	NA	500	22 – 28	25	Run-off/leaching from natural deposits; seawater influence
Sulfate (mg/L)	NA	500	240 – 297	265	Run-off/leaching from natural deposits
Specific Conductance (µmhos/cm)	NA	1600	829 – 1003	904	Run-off/leaching from natural deposits; seawater influence
Total Dissolved Solids (mg/L)	NA	1000	536 – 716	629	Run-off/leaching from natural deposits
Sulfactants (MBAS) (mg/L)	NA	0.50	0.055	0.055	Foaming agent – Municipal/ Industrial discharge

### Additional Constituents

pH (units)	NA	NA	8.0 – 8.28	8.13	
Total Hardness as CaCO <sub>3</sub> (mg/L)	NA	NA	331 – 396	365	
Total Alkalinity as CaCO <sub>3</sub> (mg/L)	NA	NA	165 – 189	174	
Calcium as Ca (mg/L)	NA	NA	70 – 84	77	
Magnesium (mg/L)	NA	NA	33 – 52	41	
Sodium (mg/L)	NA	NA	34 – 55	44	
Potassium (mg/L)	NA	NA	2.0 – 3.6	2.8	

## General Information and additional monitoring

**Water Quality Report:** Listed in the table above are substances detected in the City's drinking water. Not listed are more than 135 regulated and unregulated substances that were below the laboratory detection level. The City has received an extension to comply with the new Federal drinking water standards for disinfection by-products. Nonetheless, the City is currently meeting the new standards.

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

**For Water Softeners:** The City's water has a hardness range of 19 to 23 grains per gallon. One grain per gallon equals 17 milligrams per liter.



City of Santa Barbara  
 Public Works Department  
 Post Office Box 1990  
 Santa Barbara, CA 93102-1990

PRSRT STD  
 U.S. POSTAGE  
**PAID**  
 SANTA BARBARA, CA  
 PERMIT NO. 10

ECRWSS  
 Postal Customer



**Are you concerned about the quality of Santa Barbara's drinking water?**  
 See inside for our 2004 Water Quality Report.

## En Español

Este informe contiene información muy importante sobre su agua beber.

Tradúzcalo o hable con alguien que lo entienda bien.

Si usted tiene preguntas acerca del agua de la ciudad, por favor llame a Don Montoya, a la oficina de Recursos del Agua, al teléfono (805) 564-5387.

## For more information

Questions on the City's water system, call **805.564.5387**.

Questions on water quality, call **805.568.1008**.

City of Santa Barbara Board of Water Commissioners meets at 3:00 p.m. on the second Monday of each month. Board sessions are open to the public and are held in the Public Works Conference Room, located at 630 Garden Street.

[www.SantaBarbaraCA.gov](http://www.SantaBarbaraCA.gov) • search "water resources."

SANTA BARBARA



Questions on Water  
 Call **805-564-5460**



Printed on recycled paper

## Be Water Wise – Save Money and Water

### Water Checkup

Throughout the year we offer our water customers a free Water Checkup to help you save water and check for leaks. We also evaluate your irrigation system to make sure it is working efficiently and offer a suggested irrigation schedule.

To schedule a Water Checkup, or for information on how to save water, call the Water Conservation Hotline at **564-5460**.

### Landscape Watering Calculator

Do you want an easy way to schedule your irrigation efficiently? Go to [www.sbwater.org](http://www.sbwater.org) to create a custom irrigation schedule for your landscape.

### Water Wise Demonstration Gardens

Check out the local water wise demonstration gardens. There are several public gardens on the South Coast that have great examples of low-water using plants with plant identification, free brochures, and plant lists. For a list of gardens, go to [www.SantaBarbaraCA.gov](http://www.SantaBarbaraCA.gov) and click on "learn about water conservation" or call 564-5460.

### Green Gardener Certification Program

If resource conservation is important to you, let your landscape show it. For a list of Certified Green Gardeners go to [www.greengardener.org](http://www.greengardener.org) or call **564-5460**. Or send your gardener to the next Green Gardener class.

For more on the City's Water Conservation Program, go to [www.SantaBarbaraCA.gov](http://www.SantaBarbaraCA.gov) and click on "learn about water conservation" or call **(805) 564-5460**.