

# Santa Barbara Water

June 2004



City of Santa Barbara Annual Water Quality Report

## Major Construction Projects to Ensure Water Quality

The City continues to make improvements to your water system to provide a water supply that meets all water quality standards and meets the needs of customers during normal and emergency situations.

### Currently Under Construction

#### *Cater Water Treatment Plant*

To meet more stringent federal water quality standards, the William B. Cater Water Treatment Plant is currently being upgraded. Construction on this multi-million dollar project began in 2002 and is on schedule to be complete by the end of this year. The plant continues to treat water during the construction period, providing high quality water for the citizens of Santa Barbara, Montecito, Summerland and Carpinteria.

#### *Sheffield Reservoir*

Construction continues on the Sheffield Water Quality Project. This project entails removing the open-air Sheffield Reservoir, constructing two buried 6.5 million gallon concrete reservoirs, and the creation of a 23-acre public open space. The first phase consisted of constructing two temporary reservoirs. The existing uncovered reservoir has been demolished and construction of the permanent reservoirs is well under way. This project will improve the water quality for customers throughout the City. Completion of the project is projected for the end of 2005.

### Groundwater Projects

The Ortega Groundwater Treatment Plant was built in the 1970's and is scheduled to be upgraded to meet today's strict water quality standards. The plant treats groundwater from four wells located in the downtown area. These wells are an important part of the City's long-term water supply. They were pumped heavily

during the drought of the early 1990's, but have not been used much in recent years as water supplies in Lake Cachuma and Gibraltar Reservoir have been adequate for our customers' needs. Additionally the City is drilling new wells at Santa Barbara High School and San Roque Park. These wells will play an important role in meeting the City's water demand.



The new Sheffield 6.5 million gallon reservoirs will soon be buried.



## 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
- 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.

- Radioactive contaminants which can be naturally occurring or be the results of oil and gas production and mining activities.

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 2003, 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 William B. Cater 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.

## 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/).



# State of the Water Supply



## Is it a Drought Yet?

For the past several years people have been asking whether we are having another drought. Droughts occur gradually, so it's all a matter of degree. Rainfall was well below average this year, and it has been 3 years since we have had a year of above-average rainfall. This is important because it takes above-average rain to get any significant inflow to Lake Cachuma, the City's primary water supply source. As

a result, the water level at Cachuma has continued to drop and is now below 100,000 acre-feet (AF) out of a total capacity of 188,035 AF. (One acre-foot equals 326,000 gallons or the annual water usage of about three typical homes in Santa Barbara.) Local water purveyors that use Lake Cachuma are expected to start cutting back on deliveries from the lake to stretch the supply in case dry weather continues.

## A Variety of Supplies Available

Fortunately, Lake Cachuma is not the only water supply available to meet the City's projected demand of 14,000 AF next year. We will still take some water from Cachuma, as well as about 5,000 AF from Gibraltar Reservoir. The rest of the demand will be met with State Water, water from Mission Tunnel,

and recycled water. Groundwater would be the next supply available as a backup. For severe conditions, we have the Charles Meyer Desalination Facility available, which can be recommissioned when the substantial cost to do so is warranted.

## Shouldn't We Be Saving Water Anyway?

Yes! It's not time to start drastic drought measures, but efficient water use is always a good idea. The water you save now will help us get through a drought later. Contact our award winning conservation staff at 564-5460 to find out how you can maximize your water efficiency, or get your water saving information online at: [www.sbwater.org](http://www.sbwater.org).

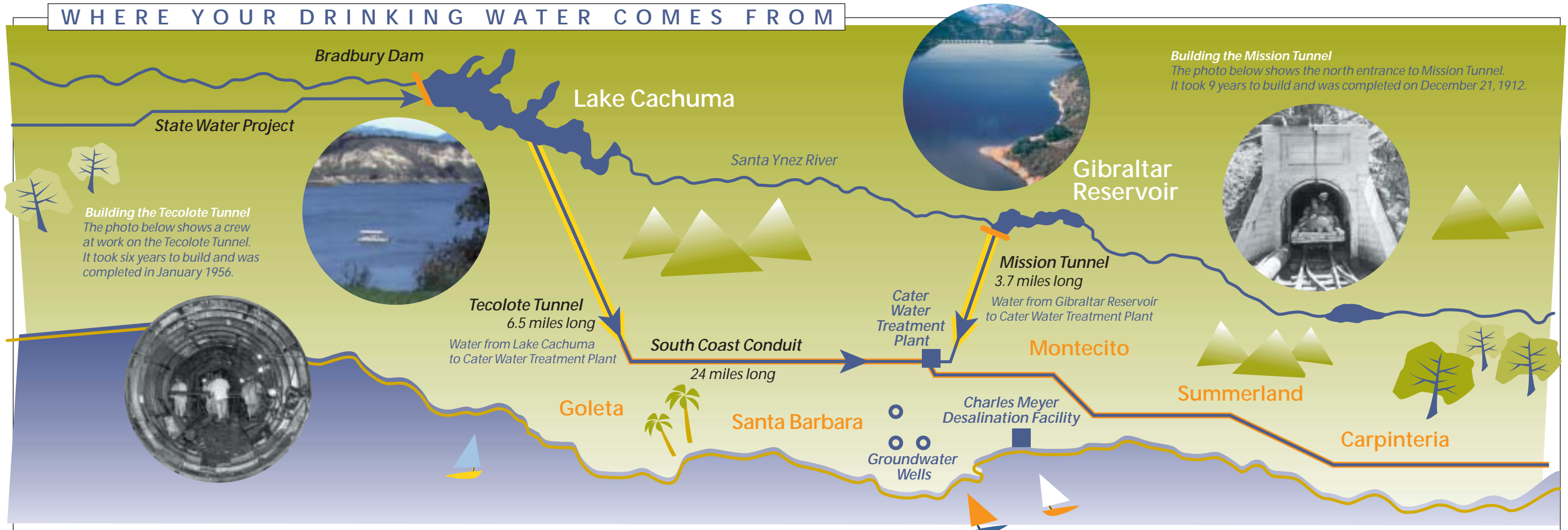
## What is in that Bottle?

Did you know that there are different treatment standards for drinking water and bottled water? One difference is bottled water, unlike tap water, doesn't include chlorine so you should treat bottled water just like any other perishable drink. For more information on bottled water, go to [www.nrdc.org/water/drinking/nbw.asp](http://www.nrdc.org/water/drinking/nbw.asp) or [www.consumerreports.org](http://www.consumerreports.org) – search "bottled water safety."



## Limited Potential for Contamination

The City has evaluated the vulnerability of our water supplies to contamination. Potential contaminants at Lake Cachuma include the use of two stroke engines which contribute 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 897-1910.



# 2003 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 (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 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>					
Turbidity (NTU)	NA	TT=1 NTU at 1, 4 & 8 hour intervals TT=Percentage of samples <0.30 NTU	0.02 – 0.13 NA	0.13 100%	Natural river sediment/soil run-off
<i>Radioactive Contaminants</i>					
Gross Alpha Particle Activity (pCi/L)	NA	15	1.6 – 2.9	1.69	Erosion of natural deposits
Beta particles and photon emitters (pCi/L)	NA	50	1.6 – 4.3	2.68	Decay of natural and manmade deposits
<i>Inorganic Contaminants</i>					
Fluoride (mg/L)	1	2	0.19 – 0.44	0.29	Erosion of natural deposits
Aluminum (mg/L)	600	1000	21 – 401	147	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (µg/L)	NA	50	ND – 4.0	1.1	Erosion of natural deposits
Barium (mg/L)	2	1	NA	0.052	Erosion of natural deposits
<i>Disinfection Byproducts, Residuals, and Byproduct Precursors</i>					
Control of DBP Precursors–TOC (mg/L)	NA	NA	2.59 – 3.22	2.91	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	37 – 130	76.1	By-product of drinking water chlorination
Haloacetic acids (µg/L)	NA	60	11 – 260	42.4	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 – 2.33	1.87	Drinking water disinfectant added to treatment
<b>UCMR</b>					
<i>Unregulated Contaminants</i>					
Boron (µg/L)	NA	1000 (AL)	280 – 480	340	
Vanadium (µg/L)	NA	50 (AL)	ND – 4.9	2.2	
<b>Lead/Copper Rules</b>					
<i>Monitored at the Customer's Tap Number of sites exceeded Action Level = 0</i>					
Copper (mg/L)	0.17	1.3 (AL)	ND – 0.23	0.031	Copper and Lead: Internal corrosion of household plumbing systems and erosion of natural deposits. Copper: leaching from wood preservatives Lead: discharges from industrial manufacturers
Lead (mg/L)	2	15 (AL)	ND – 2.0	0.20	

## Secondary Standards

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

<b>Regulated Contaminants with Secondary MCLs</b>					
Threshold Odor Number at 60 °C	NA	3	6 – 25	15	Naturally occurring organic materials
Chloride (mg/L)	NA	500	20 – 23	22	Run-off/leaching from natural deposits; seawater influence
Sulfate (mg/L)	NA	500	238 – 298	263	Run-off/leaching from natural deposits
Specific Conductance (µmhos/cm)	NA	1600	794 – 1000	895	Run-off/leaching from natural deposits; seawater influence
Total Dissolved Solids (mg/L)	NA	1000	546 – 888	652	Run-off/leaching from natural deposits

## Additional Constituents

pH (units)	NA	NA	7.95 – 8.20	8.11	
Total Hardness as CaCO <sub>3</sub> (mg/L)	NA	NA	333 – 403	372	
Total Alkalinity as CaCO <sub>3</sub> (mg/L)	NA	NA	159 – 187	172	
Calcium as Ca (mg/L)	NA	NA	72 – 91	80	
Magnesium (mg/L)	NA	NA	34 – 53	41	
Sodium (mg/L)	NA	NA	34 – 50	43	
Potassium (mg/L)	NA	NA	1.9 – 2.9	2.3	

## 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 20 to 24 grains per gallon. One grain per gallon equals 17 milligrams per liter.



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*Are you concerned about the quality of Santa Barbara's drinking water?*  
 See inside for our 2003 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 **805.897.1910**.

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.ci.santa-barbara.ca.us/departments/public\\_works/water\\_resources/](http://www.ci.santa-barbara.ca.us/departments/public_works/water_resources/)

SANTA BARBARA



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



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## 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 more on how to save water, call the Water Conservation Hotline at 564-5460. Check out [www.sbwater.org](http://www.sbwater.org) for tips on saving water.

### Landscape Watering Calculator

To create a custom irrigation schedule for your landscape, go to [www.sbwater.org](http://www.sbwater.org)

### 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.

If you'd like to know even more about City water supplies, check out the City Web Page at [www.ci.santa-barbara.ca.us](http://www.ci.santa-barbara.ca.us)