

Santa Barbara Water

June 2006



City of Santa Barbara Annual Water Quality Report

Improving Your Water System

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

Cater Water Treatment Plant

A year-long pilot project is underway at the Cater Water Treatment Plant. The pilot project is investigating alternative water treatment processes to meet upcoming federal

regulations. Once complete, the water treatment equipment at Cater will be updated, resulting in a higher quality drinking water for the citizens of Santa Barbara, Montecito, Summerland, and Carpinteria.

Groundwater Projects

A pilot project for upgrades to the Ortega Groundwater Treatment Plant has been successfully completed and final design will begin soon. The upgraded plant will treat groundwater from four wells located in the downtown area.

Additionally, two new wells have been drilled – one at Santa Barbara High School, and the other in San Roque Park. Both wells will play important roles in meeting the City's water demand.

Sheffield Reservoir Project

Construction of the Sheffield Water Quality Project is nearly finished. The two buried 6.5 million gallon reservoirs are complete and online. Installation of the landscape is nearly done. The park is now open for restricted use during the year-long plant establishment period.

The Truth about Bottled Water

Information compiled from The Earth Policy Institute

Globally, consumption of bottled water has reached 41 billion gallons per year, with the U.S. leading the world in consumption. As more consumers turn to bottled water, more trash is produced as a result. Why do Americans buy bottled water when clean tap water is available? The misconception that bottled water has greater health benefits than tap water is the likely culprit.

Ironically, the supposed "more pure" bottled water must often be transported miles to its destination, using precious fossil fuel resources. The bottles are derived from crude oil. And what then of the massive amounts of used plastic bottles? In truth, tap water and its efficient infrastructure are healthier choices both for us and our planet.



Water flowing in one of the many treatment stages at the Cater Water Treatment Plant.

Special Info Available

*Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those who: are undergoing chemotherapy, have undergone organ transplants, have HIV/AIDS or other immune system disorders, or are very old or young 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/.*



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 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 storm-water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals that are byproducts of industrial processes, petroleum production and use, or agricultural applications and septic systems.

To ensure safe drinking water, federal and state regulations limit the amount of certain contaminants in public water systems. Regulations also establish limits for contaminants in bottled water to provide protection for public health.

In 2005, as in previous years, City of Santa Barbara water met all primary state and federal standards for drinking water. All of the drinking water that comes from Lake Cachuma and Gibraltar Reservoir is treated at the William B. Cater Treatment Plant before being distributed to customers. If you are in any community and have questions about the water quality, call their water department and ask for a copy of their Consumer Confidence Report.

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 USEPA's Safe Drinking Water Hotline at 1-800-426-4791 or visiting their website at www.epa.gov/safewater/.

State of the Water Supply

Beautiful water wise plants at the Alice Keck Park Memorial Garden. For great ideas for your garden, pick up a brochure and plant list and view labeled plants in the garden.



Full reservoirs ensure there are several years before we see potential for serious drought. However, please remember that water conservation helps stretch these supplies, and can save you money by avoiding the need to activate the City's back-up water supplies. This is why the City has an active water conservation program.

Call us at (805) 564-5460 with questions about how to save water, to request brochures on indoor and outdoor water conservation, or to schedule your free water check-up. More information is available online at www.SantaBarbaraCA.gov, click on "learn about water conservation" or at www.sbwater.org for the latest information on water conservation.

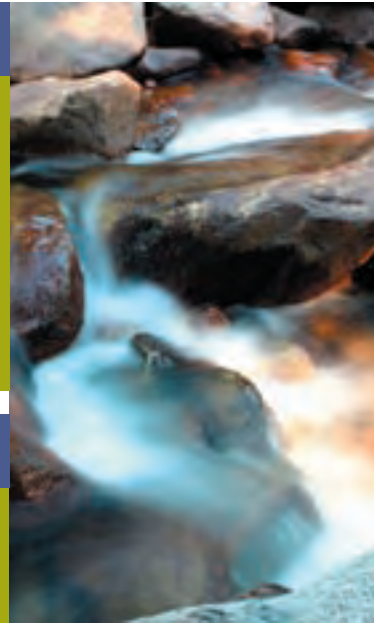
The City's water supply is diverse, but our primary sources depend on local rainfall. Fortunately, winter rains completely filled Gibraltar Reservoir and Lake Cachuma for the second year in a row.

drought again becomes a concern. When the lake level drops to approximately half full, we begin to plan for a potentially severe drought. Rains usually refill the lake before the level gets too low, but those who were here during the drought in 1990 remember that our reservoirs can nearly dry up.

Lake Cachuma is the "clock" by which we measure how long we have until a

Radon

Radon is a radioactive gas that you can't see, taste or smell that is found throughout the United States. It occurs naturally in certain rock formations. As a result, radon can be found in Santa Barbara's groundwater. Groundwater is a small part (1.5%) of the City's total water supply. Radon has not been detected in the City's surface water. Radon can enter homes through cracks or holes in foundations and floors. Radon can also get indoors when released from tap water. Test your home if you are concerned about radon. Testing is inexpensive and easy. For additional information call USEPA's radon hotline at (800) SOS RADON.



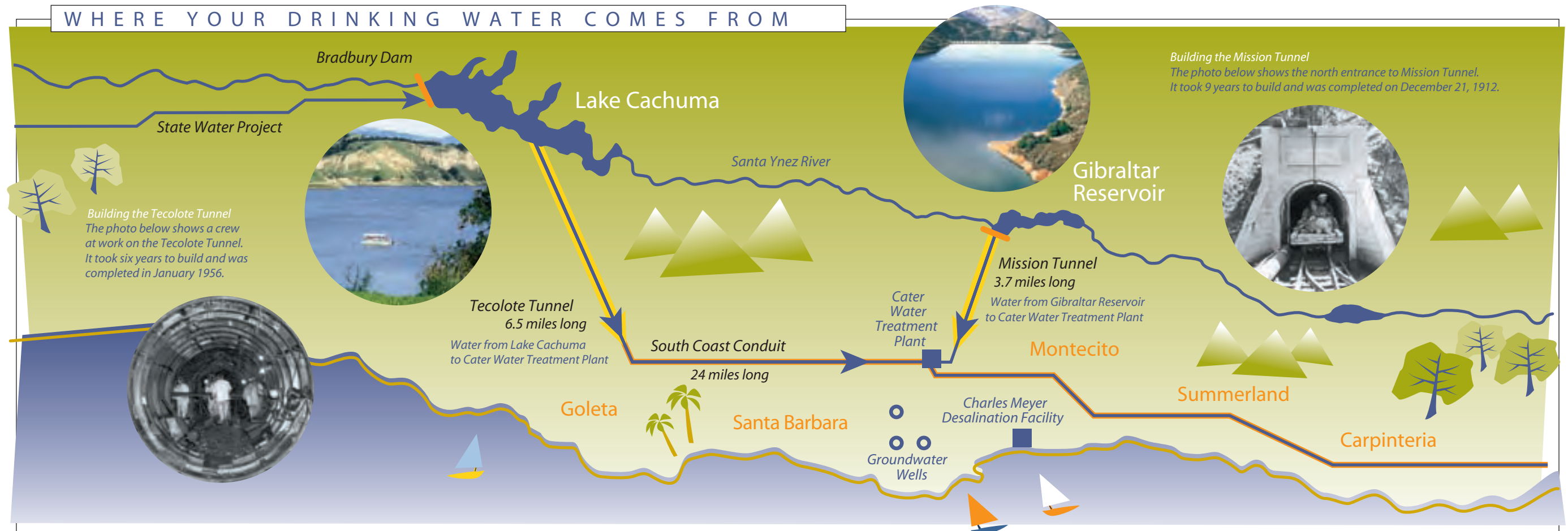
Your Water Softener Setting

The City's surface water at Cater Water Treatment Plant has a hardness range of 20 to 26 grains per gallon. The City's groundwater supplies have a hardness range of 14 to 39. One grain per gallon equals 17 milligrams per liter.

Limited Potential for Contamination

The City has evaluated the vulnerability of our water supplies to contamination. For potential contaminants at Lake Cachuma, the 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.

WHERE YOUR DRINKING WATER COMES FROM



2005 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

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)

mmho/cm: Micromhos per centimeter

DBP: Disinfection Byproducts

NA: Not applicable or no standard or no data

Cater Water Treatment Plant

Groundwater

SUBSTANCE (Parameter)	Public Health Goal	Maximum Contaminant Level	Range Detected	Reporting Value	Range Detected	Reporting Value	Major Sources in Drinking Water
PRIMARY STANDARDS							
Regulated Contaminants with Primary MCLs or MRDLs							
<i>Microbiological Contaminants</i>							
Total Coliform Bacteria	0	5% of monthly samples	0% – 0.68%	0.68%	0% – 0.68%	0.68%	Naturally present in the environment
Turbidity (NTU)	NA	TT = 1 NTU	0.2 – 0.07	0.07	NA	NA	Natural river sediment/soil run-off
		TT = 95% of samples ≤ 0.30 NTU	NA	100%	NA	NA	
<i>Inorganic Contaminants</i>							
Fluoride (mg/L)	1	2.0	0.33 – 0.57	0.40	0.17 – 0.81	0.38	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Aluminum (µg/L)	600	1000	11 – 240	129	14 – 310	64	Erosion of natural deposits
Barium (mg/L)	2	1	NA	0.040	NA	0.058	Erosion of natural deposits
Uranium (µg/L)	NA	30	2.40 – 2.70	2.55	ND – 9.50	2.12	Erosion of natural deposits
<i>Disinfection Byproducts, Residuals, and Byproduct Precursors</i>							
Total Trihalomethanes (µg/L)	NA	80	2.1 – 180	66.0	2.1 – 180	66.0	By-product of drinking water chlorination
Haloacetic acids (µg/L)	NA	60	6.2 – 21	11.1	6.2 – 21	11.1	By-product of water disinfection
Disinfectant-Free Chlorine Residual (mg/L)	MRDLG as Cl ₂ 4.0	MRDL as Cl ₂ 4.0	ND – 1.30	0.52	ND – 1.90	0.52	Drinking water disinfectant added to treatment
Control of DBP Precursors–TOC (mg/L)	NA	Treatment Requirements	2.30 – 2.95	2.53	ND – 1.43	0.40	Total Organic Carbon (TOC) has no health effects. However, it provides a medium for the formation of disinfection byproducts. Various natural & manmade sources.
<i>Volatile Organics</i>							
Tetrachloroethylene (PCE) (µg/L)	0.06	5	ND	ND	ND – 3.4	0.68	Discharge from factories, dry cleaners, and auto shops
UCMR							
<i>Unregulated Contaminants</i>							
Boron (µg/L)	NA	1000 (AL)	260 – 270	265	NA	NA	
Vanadium (µg/L)	NA	50 (AL)	ND – 4.9	2.2	NA	NA	
Lead/Copper Rules							
<i>Monitored at the Customer's Tap</i>							
<i>Number of sites exceeded Action Level = 0</i>							
Copper (mg/L)	0.17	1.3 (AL)	ND – 0.190	0.097	ND – 0.190	0.097	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (µg/L)	2	15 (AL)	ND – 2.7	1.7	ND – 2.7	1.7	
Radiochemistry							
<i>Radioactive Contaminants</i>							
Radon (pCi/L)	NA	NA	ND	ND	ND – 350	312	See reporting notice on Radon in this report

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							
Turbidity (NTU)	NA	TT = 5 NTU	NA	NA	0.07 – 1.79	1.79	Natural river sediment soil run-off
		TT = 95% of samples ≤ 1.0 NTU	NA	NA	NA	96%	
Threshold Odor Number at 60 °C	NA	3	6 – 15	9	4 – 15	7	Naturally occurring organic materials
Chloride (mg/L)	NA	500	15 – 29	19	32 – 248	92	Run-off / leaching from natural deposits; seawater influence
Sulfate (mg/L)	NA	500	208 – 336	263	111 – 284	199	Run-off / leaching from natural deposits
Specific Conductance (µmhos/cm)	NA	1600	748 – 1015	875	747 – 1703	1069	Run-off / leaching from natural deposits; seawater influence
Total Dissolved Solids (mg/L)	NA	1000	536 – 716	628	526 – 1141	713	Run-off / leaching from natural deposits
Additional Constituents							
pH (units)	NA	NA	7.83 – 8.37	8.03	6.65 – 7.59	6.96	
Total Hardness as CaCO ₃ (mg/L)	NA	NA	332 – 436	374	229 – 661	409	
Total Alkalinity as CaCO ₃ (mg/L)	NA	NA	166 – 188	179	176 – 297	226	
Calcium as Ca (mg/L)	NA	NA	68 – 100	88	73 – 155	109	
Magnesium (mg/L)	NA	NA	30 – 52	38	22 – 68	36	
Sodium (mg/L)	NA	NA	28 – 48	37	26 – 98	52	
Potassium (mg/L)	NA	NA	2.0 – 2.9	2.4	1.1 – 3.0	1.7	

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.



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Are you concerned about the quality of Santa Barbara's drinking water?

See inside for our 2005 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

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.

Landscape Watering Calculator and Index

Do you want an easy way to schedule your irrigation efficiently? Use these on-line irrigation scheduling tools to know exactly how much water your plants need. See website info below.

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 water wise plants with plant identification, free brochures, and plant lists.

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 or send your gardener to the next Green Gardener class.

For information on the following water conservation programs go to www.SantaBarbaraCA.gov and click on "learn about water conservation" or call the Water Conservation Hotline at **(805) 564-5460**.