

Santa Barbara Water

June 2007



City of Santa Barbara Annual Water Quality Report

Fish Management on the Santa Ynez River



Steelhead trout in Salsipuedes Creek

Enhancing Habitat for Steelhead Trout

The Santa Ynez River is the primary source of water for the City of Santa Barbara, and the rest of the South Coast. The Lower Santa Ynez River, below Lake Cachuma, is also home to endangered steelhead trout. Steelhead are the ocean-going version of rainbow trout. For almost twenty years, the Cachuma water agencies have been working to promote a better understanding of fish resources and water supply issues on the Santa Ynez River. The Lower Santa Ynez River Fish Management Plan, adopted in 2000, identifies projects and management strategies to enhance steelhead habitat in the lower river and tributaries. Implementing the plan includes:

- Modifying barriers to steelhead migration;
- Releasing water from Lake Cachuma for steelhead migration
- Improving habitat for steelhead; &
- Maintaining a long-term monitoring program.

Fish Passage Projects

Fish passage projects have been completed at Salsipuedes and Hilton Creeks. Projects at Quiota and El Jaro Creeks are planned for the coming year. The gates at Bradbury Dam have been modified to allow storage of extra water in wet years, which is released downstream at critical times to support habitat and promote migration of steelhead upstream. Ongoing monitoring and studies of fish above and below the dam promote a growing understanding of the steelhead in the Santa Ynez River.

Water Management Program

Lake Cachuma was built as a water supply facility, and that is still its primary function. But the lake also stores water for recharging the groundwater basins of the Santa Ynez and Lompoc Valleys, provides flood control protection, supports recreation, conveys supplemental State Water to South Coast communities, and augments river flows below the dam to help steelhead. Coordinating all these important uses has resulted in a balanced water management program for people, farms, and fish. To learn more about steelhead and the Santa Ynez River visit ccrb-comb.org.



Snorkelers survey Salsipuedes Creek to determine the presence of fish.



Drinking Water Treatment Regulations

The City of Santa Barbara obtains 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 2006, 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 Cater Water Treatment Plant before being distributed to customers. If you are in any other 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 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 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 USEPA's Safe Drinking Water Hotline at 1-800-426-4791 or visiting their website at epa.gov/safewater/.

State of the Water Supply

Lake Cachuma is the City of Santa Barbara's primary source of water.



The City's Water Conservation Program has good information and good people to help you use water more efficiently – and it's all free. Call us at 805-564-5460 to schedule a free water checkup, or go to SantaBarbaraCA.gov/water for information about indoor and outdoor water conservation, rebate programs, and the City's water system.

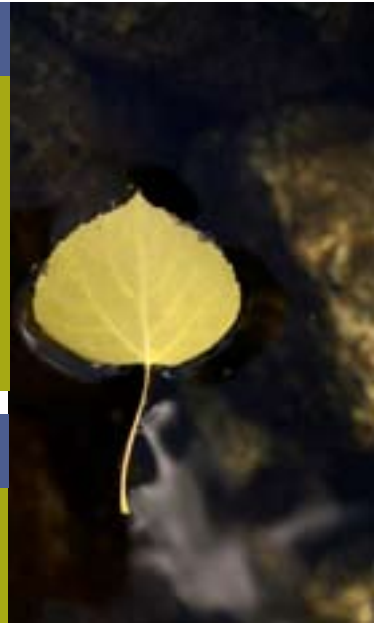


Use water-wise plants in your garden. For a searchable water-wise plant database go to: SantaBarbaraCA.gov/water

The City has a diverse water supply, but our primary source is from local reservoirs which depend on rainfall. Dry weather last winter means Gibraltar Reservoir is lower than usual and therefore we will pump some groundwater during the coming year to make up the difference. Luckily, it takes several dry years before drought becomes an immediate concern. Currently, Lake Cachuma is still about 80% full. So what does that mean about water conservation? Water conservation is always important. The water you save now by increasing your efficiency helps stretch our supplies in case of drought. It also helps us avoid extra costs to bring in more water.

Radon

Radon is a radioactive gas that you can't see, taste or smell. It occurs naturally in certain rock formations throughout the United States. As a result, radon can be found in Santa Barbara's groundwater, which makes up 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 the USEPA's radon hotline at (800) SOS RADON.



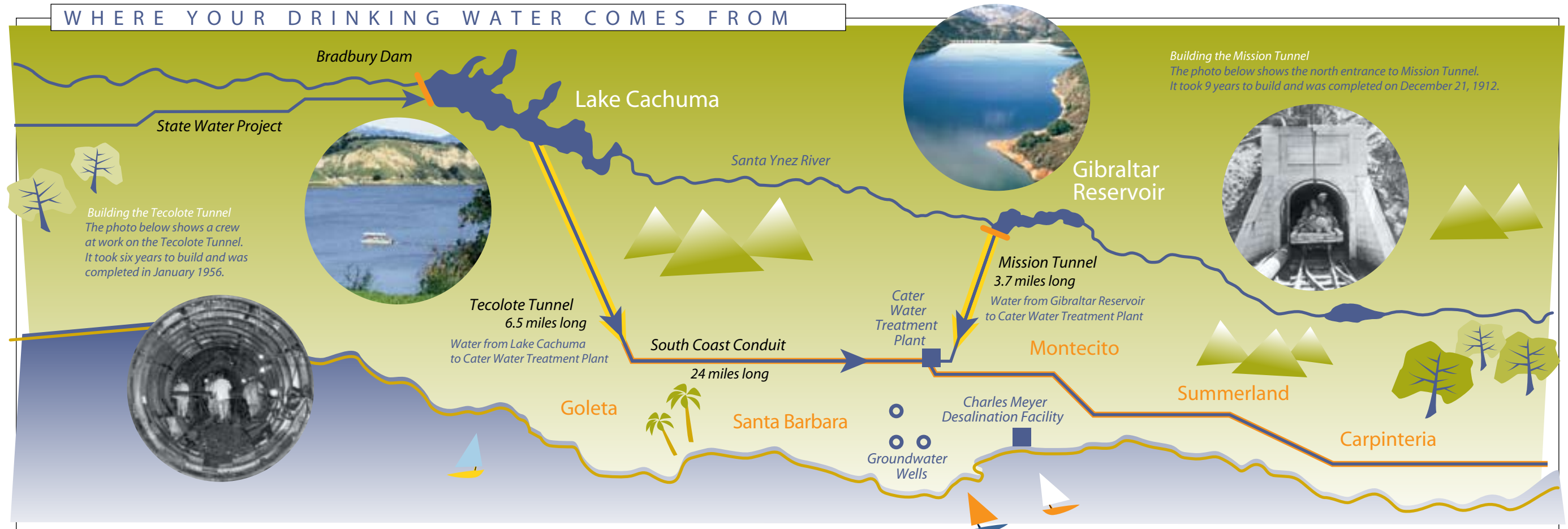
Your Water Softener Setting

The City's surface water at Cater Water Treatment Plant has a hardness range of 21 to 24 grains per gallon. The City's groundwater supplies have a hardness range of 18 to 40. 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 hydrocarbons 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 info., call 568-1008.

WHERE YOUR DRINKING WATER COMES FROM



2006 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

Surface Water Groundwater

SUBSTANCE (Parameter)	Public Health Goal	Maximum Contaminant Level	Range Detected	Reporting Value	Range Detected	Reporting Value	Major Source in Drinking Water
PRIMARY STANDARDS							
Regulated Contaminants with Primary MCLs or MRDLs							
<i>Microbiological Contaminants</i>							
Total Coliform Bacteria	0	5% of monthly samples TT = 1 NTU	0%	0%	0%	0%	Naturally present in the environment
Turbidity (NTU)	NA	TT = 95% of samples ≤0.3 NTU	0.02 - 0.08 NA	0.08 100%	See table below	See table below	Natural river sediment/soil run-off
<i>Inorganic Contaminants</i>							
Fluoride (mg/L)	1	2.0	0.23 - 0.43	0.35	0.14 - 0.47	0.28	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer factories
Aluminum (µg/L)	600	1000	45 - 434	193	5 - 51	25	Erosion of natural deposits
Barium (mg/L)	2	1	No Range	ND	No Range	0.004	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	Running Average 80	4.2 - 93	62.3	4.2 - 93	62.3	By-product of drinking water chlorination
Haloacetic acids (µg/L)	NA	60	1.2 - 28	16.2	1.2 - 28	16.2	By-product of water disinfection
Disinfectant-Free Chlorine Residual (mg/L)	MRDLG as Cl ₂ 4.0	MRDL as Cl ₂ 4.0	ND - 2.20	0.65	ND - 2.20	0.65	Drinking water disinfectant added to treatment
Control of DBP Precursors-TOC (mg/L)	NA	Treatment Requirements	2.41 - 2.86	2.55	0.17 - 0.78	0.32	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	No Range	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>							
Number of sites exceeded Action Level = 0							
Copper (mg/L)	0.17	1.3 (AL)	ND - 0.474	0.079	ND - 0.474	0.079	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (µg/L)	2	15 (AL)	ND - 4.0	2.4	ND - 4.0	2.4	
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							
<i>Aesthetic Standards Established By the State of California, Department of Health Services.</i>							
Regulated Contaminants with Secondary MCLs							
<i>No adverse health affects from exceedence of standards.</i>							
Groundwater Turbidity (NTU)	NA	TT = 5 NTU TT = 95% of samples ≤1.0 NTU	See table above	See table above	0.10 - 0.89 NA	0.31 100%	Natural river sediment soil run-off
Threshold Odor Number at 60 °C	NA	3	6 - 10	8	5 - 15	9	Naturally occurring organic materials
Chloride (mg/L)	NA	500	16 - 19	18	32 - 257	97	Run-off / leaching from natural deposits; seawater influence
Sulfate (mg/L)	NA	500	244 - 295	272	149 - 279	217	Run-off / leaching from natural deposits
Specific Conductance (µmhos/cm)	NA	1600	830 - 1021	916	780 - 1806	1203	Run-off / leaching from natural deposits; seawater influence
Total Dissolved Solids (mg/L)	NA	1000	604 - 730	655	542 - 1210	799	Run-off / leaching from natural deposits
Additional Constituents							
pH (units)	NA	NA	7.80 - 8.21	8.00	6.77 - 7.75	7.11	
Total Hardness as CaCO ₃ (mg/L)	NA	NA	360 - 412	394	298 - 688	469	
Total Alkalinity as CaCO ₃ (mg/L)	NA	NA	177 - 194	188	204 - 299	244	
Calcium as Ca (mg/L)	NA	NA	86 - 103	93	80 - 404	173	
Magnesium (mg/L)	NA	NA	33 - 47	41	22 - 66	40	
Sodium (mg/L)	NA	NA	36 - 47	42	43 - 111	69	
Potassium (mg/L)	NA	NA	2.2 - 3.5	2.6	1.2 - 2.4	1.8	

Note: 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 2006 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.

SantaBarbaraCA.gov/water

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.

Landscape Watering Calculator and Index

Do you want an easy way to schedule your irrigation efficiently? Use these online scheduling tools to know exactly when and how much to water your garden.

Rebates

Attention business and residential customers! Water efficiency rebates are available for a limited time.

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 greengardener.org or send your gardener to the next Green Gardener class.

For information on the above water conservation programs go to SantaBarbaraCA.gov/water or call the Water Conservation Hotline at 805-564-5460.