



MAY 2017

INFORMATION ABOUT YOUR WATER

Strict Federal and State Quality Regulations

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and the State Water Resources Control Board (SWRCB) regulate certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water, providing the same protection for public health.

How You Can Get Involved

Our District Board of Directors normally meets the second Tuesday of each month at 5:30 p.m. in the District Board Room at 4699 Hollister Avenue in Goleta. The public is encouraged to attend.

**For more information
about your water,
contact Tom Bunosky
at (805) 879-4630.**

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

GOLETA WATER DISTRICT

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ANNUAL CONSUMER CONFIDENCE REPORT

Results of Extensive Water Quality Testing for 2016

This report explains how water quality is measured, defines common terms, and reports on the results of the District's water quality testing. The District is pleased to report that it is in compliance with all State and Federal water quality standards.

*Even with winter rains, the Goleta Valley remains in drought.
The District relies on a diverse water supply portfolio.*



The Airport, Anita, Berkeley, El Camino, San Antonio, San Marcos, San Ricardo, Shirrell, Sierra Madre, and University groundwater wells were used throughout 2016. In addition, State Water and water from Lake Cachuma is treated at the Corona Del Mar Water Treatment Plant.

*Our State-Certified water treatment facilities monitor
your water quality around-the-clock. We are committed
to providing our customers with high-quality and reliable
water at the lowest reasonable cost.*

How We Provide Quality Water

State Certified Operators and Round-the-Clock Monitoring. Our water treatment operators are state-certified water treatment professionals and are on the job every day to ensure your water always meets quality standards.

Extensive Testing. The District conducts thousands of tests each year using automated test equipment that continually analyzes water at different steps in the treatment process. Testing is conducted in our own laboratory and by independent state-certified laboratories.

Modern Updated Treatment Plant. The District invested in significant improvements to the Corona Del Mar Water Treatment Plant in 2000 and 2007. Currently, the District is implementing upgrades and operational improvements that will enable the District to continue providing cost-effective, high-quality water service, even as supply sources change.

Backup Systems to Ensure Quality. The treatment plant includes backup equipment for key systems to increase reliability during emergencies, high-water-use days, and during maintenance or interruptions.

Results of the 2016 Drinking Water Quality Tests

The tables below list drinking water contaminants and other substances detected during 2016. The District also tested for many additional substances that were not detected, and therefore are not listed in this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data is for testing done January 1 - December 31, 2016. The test results show that your water met or was better than all primary State and Federal water quality standards.

REGULATED CONTAMINANTS WITH PRIMARY MCLS

INORGANIC	MCL	PHG (MCLG)	Surface Water Average	Surface Water Range	Groundwater Average	Groundwater Range	Typical Source of Contaminant
Aluminum (ppm)	1	0.6	ND	ND-0.091	ND	ND-ND	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	10	0.004	ND	N/A	ND	ND-9.2	Erosion of natural deposits; runoff from orchards; glass and electronics production
Fluoride (ppm)	2.0	1	0.45	N/A	0.38	0.23-0.58	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Hexavalent Chromium (ppb)	10	0.02	ND	N/A	ND	ND-1.7	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Nickel (ppb)	100	12	ND	N/A	ND	ND-12	Erosion of natural deposits; discharge from metal factories
Nitrate as N (ppm)	10	10	ND	N/A	0.69	ND-4.4	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	50	30	ND	N/A	ND	ND-13	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)

RADIOLOGICAL	MCL	PHG (MCLG)	Surface Water Average	Surface Water Range	Groundwater Average	Groundwater Range	Typical Source of Contaminant
Gross Alpha particle activity (pCi/l)	15	(0)	5.2	N/A	3.0	ND-7.6	Erosion of natural deposits
Gross Beta particle activity (pCi/l)	50 ¹	(0)	4.3	N/A	ND	ND-4.4	Decay of natural and man-made deposits
Radium 228 (pCi/l)	5	0.019	ND	N/A	ND	ND-1.6	Erosion of natural deposits
Uranium (pCi/l)	20	0.43	1.7	N/A	1.5	ND-5.4	Erosion of natural deposits

LEAD AND COPPER RULE	AL	PHG (MCLG)	90th Percentile Value	# of Sample Sites	# of Sites Exceeding RAL	Typical Source of Contaminant
Copper (ppm)	1.3	0.3	0.95	33	1	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb) ²	15	0.2	ND	33	0	Internal corrosion of household water plumbing systems; discharge from industrial manufacturers; erosion of natural deposits

MICROBIOLOGICAL	MCL	PHG (MCLG)	Highest Single Measurement	Lowest Percentage of Samples Meeting TT	Typical Source of Contaminant
Turbidity ³ (NTU)	TT ⁴	N/A	0.229	100%	Soil runoff

DISINFECTION BYPRODUCTS (DBP), DISINFECTION RESIDUALS, AND DISINFECTION BYPRODUCT PRECURSORS	MCL or [MRDLG]	PHG (MCLG) or [MRDLG]	System Average	System Range	Typical Source of Contaminant
TTHMs [Total Trihalomethanes] (ppb)	80	N/A	69	5.7-130	Byproduct of drinking water disinfection
Haloacetic Acids (ppb)	60	N/A	14	ND-18	Byproduct of drinking water disinfection
Chlorine (ppm)	[MRDL = 4.0 (as Cl ₂)	[MRDLG = 4.0 (as Cl ₂)	1.19	0.30-4.80	Drinking water disinfectant added for treatment
Control of DBP precursors (TOC in ppm)	TT ⁵	N/A	2.8	2.3-3.4	Various natural and man-made sources

UNREGULATED CONTAMINANTS WITH REQUIRED MONITORING⁶

CONSTITUENT	Surface Water Average	Surface Water Range	Groundwater Average	Groundwater Range	Typical Source of Contaminant
1,4-Dioxane	ND	ND-ND	1.4	ND-15	N/A
Bromochloromethane (ppb)	0.54	N/A	ND	ND-ND	N/A
Chlorate (ppb)	325	170-400	370	75-1600	N/A
Molybdenum (ppb)	9.9	9.1-11	2.3	ND-4.2	N/A
Strontium (ppb)	838	810-870	1107	850-1600	N/A
Vanadium (ppb)	3.6	ND-4.5	ND	ND-5.5	N/A

REGULATED CONTAMINANTS WITH SECONDARY MCLS

CONSTITUENT	Secondary MCL	Surface Water Average	Surface Water Range	Groundwater Average	Groundwater Range	Typical Source of Contaminant
Chloride (ppm)	500	63	61-64	104	ND-380	Runoff/leaching from natural deposits; seawater influence
Color (units)	15	ND	ND-20	ND	ND-20	Naturally occurring organic materials
Copper (ppm)	1	ND	N/A	ND	ND-0.130	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Iron (ppb)	300	ND	N/A	105	ND-2900	Leaching from natural deposits; industrial wastes
Manganese (ppb)	50	ND	N/A	20	ND-780	Leaching from natural deposits
Odor-Threshold (units)	3	1	1-12	2	1-35	Naturally occurring organic materials
Specific Conductance (µmhos/cm)	1600	1182	983-1488	1348	1040-2010	Substances that form ions when in water
Sulfate (ppm)	500	290	N/A	301	140-580	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	1000	664	657-670	1011	740-1500	Runoff/leaching from natural deposits
Turbidity (NTU)	5	0.161	0.031-1.12	0.262	0.020-1.62	Soil runoff
Zinc (ppm)	5	ND	N/A	ND	ND-0.065	Runoff/leaching from natural deposits; industrial wastes

OTHER CONSTITUENTS

CONSTITUENT	Surface Water Average	Surface Water Range	Groundwater Average	Groundwater Range
Alkalinity (ppm as CaCO ₃)	160	132-181	294	180-395
Bicarbonate (ppm)	190	N/A	356	220-460
Calcium (ppm)	72	N/A	158	120-220
Hardness (ppm as CaCO ₃)	350	284-394	575	440-914
Magnesium (ppm)	44	N/A	43	33-81
pH (units)	7.23	6.41-7.71	7.12	6.72-7.59
Potassium (ppm)	4.7	N/A	2.8	1.6-6.2
Radon ² (pCi/l)	ND	N/A	322	ND-853
Sodium (ppm)	83	N/A	86	61-160

Variance: Goleta Water District (District) serves unfiltered Lake Cachuma water to 33 connections on the Goleta West Conduit. The water receives chlorination treatment but does not comply with the Surface Water Treatment Rule (SWTR). The State Department of Public Health allows the District to provide bottled water to these customers for drinking and cooking. The District notifies these consumers quarterly that the water delivered is not in compliance with SWTR and should not be consumed.

Definitions Used in the Chart

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 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.

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 Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standard (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

N/A: Not applicable.

ND: Not detected at testing limit.

ppb: Parts per billion or micrograms per liter.

ppm: Parts per million or milligrams per liter.

pCi/l: Picocuries per liter (a measure of radiation).

µmhos/cm: Micromhos per centimeter (an indicator of dissolved minerals in the water).

NTU: Nephelometric turbidity units.

Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Footnotes to the Chart

- SWRCB considers 50 pCi/L to be the level of concern for beta particles.
- If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Goleta Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.
- Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
- Turbidity of the filtered water must: 1) Be less than or equal to 0.3 NTU in 95% of measurements in a month; 2) Not exceed 1.0 NTU.
- Conventional surface water treatment plants must remove a certain percentage of the TOC in their raw intake water using a specialized enhanced coagulation treatment technique. The percentage removal required depends on raw water quality characteristics. For Goleta Water District's Corona del Mar Water Treatment Plant's raw water source, the required percentage was 15% - 25% through 2016. Due to the nature of Corona del Mar Water Treatment Plant's raw water, the water is non-amenable to removal of TOC via enhanced coagulation. Goleta Water District has a permitted waiver from this treatment requirement from the California Department of Public Health.
- Unregulated contaminant monitoring helps USEPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.
- Radon is a radioactive gas that you cannot 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. You should pursue radon removal for 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 are not too costly. For additional information, call your State radon program (1-800-745-7236), the USEPA Safe Drinking Water Act Hotline (1-800-426-4791), or the National Safety Council Radon Hotline (1-800-767-7236).

NOTE: The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. All of the surface water data presented in the tables are from samples taken in 2016, except for the following: The radon data is from 2006. The unregulated contaminant data is from 2014. All of the groundwater data presented in the tables are from samples taken in 2016, except for the following: The unregulated contaminant data is from 2014, 2015 and 2016. The aluminum, nickel, selenium, gross alpha, gross beta, radium-228, uranium and lead data is from 2015 and 2016. The radon data is from 2000, 2001, 2003, 2006 and 2009.



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Source Water Assessment

A source water assessment is an important tool for protecting water quality. It identifies how potential contaminants can affect a water source, and potential contamination vulnerabilities. A source water assessment is required for surface water every five years.

The most recent assessment was completed for Lake Cachuma in October 2016. An assessment of all active District groundwater wells was completed in January 2002, an assessment of the Sierra Madre Well was completed in April 2003, and an assessment of the San Ricardo Well was completed in April 2013. Operating conditions surrounding the wells have not changed since that time, so an updated assessment has not been necessary.

Copies of the completed assessments are available at the District main office. You may request a summary of the assessments by contacting **Tom Bunosky, District Operations Manager** at (805) 879-4630.

Drinking Water Info

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 (800) 426-4791 or visit <http://water.epa.gov/drink>.

The District water quality testing is extremely accurate. Depending on the substance, we can detect to the equivalent of one hundredth of a part in a billion parts of water. This is the equivalent to finding one drop of a substance in 1,300,000 gallons of water.

Water in the Environment

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. 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 source water 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, or farming.
- **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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.
- **Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

People with Sensitive Immune Systems

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 (1-800-426-4791)**.