

2015 Consumer Confidence Report

Water is Precious



MEINERS OAKS WATER DISTRICT CONSUMERS CONFIDENCE REPORT FOR 2015

Last year, as in years past, your tap water meets all EPA and State drinking water health standards. Meiners Oaks Water District has delivered safe drinking water that did not violate any maximum contaminant levels. This report details about where your water comes from, what it contains, and how it compares to State standards.

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 (1-800-426-4791).

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).

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. Water can also pick up substances resulting from the presence of

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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 storm water 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 storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can, also come from gas stations, urban storm water runoff and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.
- Disposing of unused, unwanted, and expired medications once it was common practice to flush these medications (also known as pharmaceuticals) down the toilet. Your doctor or pharmacist may have directed you to do this. We now know that these substances are bad for our environment - the ground, water, and the air around us. Please return all unused medications to your pharmacist.
- Department of Health and EPA regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

For more information please look to (www.nodrugsdownthedrain.org)

In order to ensure that tap water is safe to drink, the USEPA and the California Department of Public Health (CDPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

In order to ensure that tap water is safe to drink, USEPA and the California Department of Public Health prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish a limit for contaminants in bottled water that must provide the same protection for public health. To add to the delivery and protection of your drinking water, we have added a new EPA approved 2 stage filtration system with a coagulant to aid the removal of turbidity, Cryptosporidium and Giardia. The first stage has a run of 10 filters and the second has a run of 8 filters. The filtration system combined with chlorine gas at a level of .8 to 1.2 ppm (parts per million) meet the minimum removal and inactivation requirements of the State of California which are 2 log (99%) for Cryptosporidium, 3 log (99.9%) Giardia and 4 log (99.99%) viruses. With the addition of chlorine gas at a level of .8 to 1.2 ppm (parts per million) which can help to ensure that the best water possible is being delivered to our customers.

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Sources of your Water

Your water comes from four district wells drilled 100 to 400 feet into underground aquifers. Two groundwater wells are located at Lomita and Rice, and two wells three miles north of Meiners Oaks. We also have two 4" connections to receive surface water from Lake Casitas. Customers may receive Lake Casitas surface water if our wells need repair or cannot keep up with system demand. A blend of surface and ground water is delivered on those occasions.

Water Conservation

On January 17, 2014 Governor Edmund G. Brown has declared a drought emergency throughout California, April 25th, 2014 proclaimed that a State of Emergency continues to exist including a call for a mandatory statewide reduction of up to 36% in some areas depending on 2013 usage and amount of service connections within the agencies boundary while Executive Orders B-26-14, B-28-14, B-29-15, B-36-15 and B-37-16 are to remain in full force. Governor Brown also called for water agencies to develop and implement their own Drought Contingency Plans to implement water restrictions later on. Meiners Oaks Water District completed its plan in August 2014 and is currently being updated for 2016. A draft of our Drought Contingency Plan can be found on our website for public comment.

Meiners Oaks Water District would like to remind its customers that a **phase 3 water shortage** has been declared requesting that every customer **reduce their water consumption by 30%**. Lake Casitas is currently measuring at 39.6% of its capacity. This will help reduce the strain on our wells and lower the amount of water that would need to be purchased from Lake Casitas. It is a precious natural resource that we cannot afford to waste. We would also like to remind everyone that this has been another below normal year for rainfall at 14.01". This means that we all should pay close attention to the amount we all use from day to day indoor and outdoor. So please keep in mind to use positive shut off valves when washing your car or watering your plants or garden. Use low flow shower heads and faucets. Low flow toilets are also a big water saver. If you cannot afford low flow fixtures or any of the many other water saving devices available to you, as a customer of Meiners Oaks Water District, you are eligible for rebates from Casitas Municipal Water District as a Meiners Oaks Water District customer. At this point in the year our well levels are very low, if the weather doesn't become more cooperative in the upcoming years water levels will drop and conditions will become very severe. So please remember to conserve our precious resource. Another way to save water is to use smart controllers for your irrigation valves. They are available through Casitas Municipal Water rebate program and most irrigation supply houses. Let Casitas Water know that you are one of our customers and present them a water bill from our district and they will take it from there. Please contact Ron Merckling at 649-2251 EXT. 118 for more information.

Fun Facts about Water



It takes 200,000,000 litres per second to grow food for the planet



Over 90% of the world's supply of fresh water is located in Antarctica



70% of the Earth is covered with water but only about 1% of the world's water is readily available for human use. Nearly 97% is salty or otherwise undrinkable. Another 2% is locked in the ice caps and glaciers. That leaves just 1% for all humanity's needs



Since life began, we have had the same amount of water on the planet. To the best of human understanding, life can only exist with water



The water from your tap could contain molecules that dinosaurs drank



More than half (63%) our daily water consumption at home originates from the bathroom and the toilet



Water regulates the Earth's temperature



Water is the only mineral that is found naturally on Earth in three forms; liquid, gas, solid



Each Briton uses about 150 litres of tap water a day, but if you include the amount of water embedded within products, our water consumption increases to about 3400 litres a day



It takes about 37 gallons of water to grow the coffee beans and process them to make one cup of coffee.



To produce just one pint of beer for example, takes 170 litres of water

For more information about saving water and doing your part go to

www.bewaterwise.com or www.meinersoakwater.org or www.casitaswater.org

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Water System Name: MEINERS OAKS CWD

Report Date: July 2016

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2015.

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

Type of water source(s) in use: According to SWRCB records, the Sources Well 01 and Well 02 are Groundwater under the influence of Surface Water. This Assessment was done using the Default Groundwater System Method. According to CDPH records, the Sources Well 04, Well 07, and Well 08 are Groundwater. This Assessment was done using the Default Groundwater System Method.

Your water comes from 4 source(s): Well 01, Well 02, Well 04 and Well 07

For more information about this report, or any questions relating to your drinking water, please call (805) 646-2114 and ask for Mike Hollebrands.

TERMS USED IN THIS REPORT

Maximum Contaminant Level (MCL): The highest level of contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically 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 (USEPA).

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 Standards (PDWS): MCLs and MRDLs for the contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for the contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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 that a water system must follow.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (µg/L)

pCi/L: picocuries per liter (a measure of radiation)

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*, that 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*, that 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 USEPA and the California Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, 5, 6 and 7 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

Table 1 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER						
Lead and Copper (complete if lead or copper detected in last sample set)	Sample Date	90th percentile level detected	No. Sites Exceeding AL	AL	PHG	Typical Sources of Contaminant
Lead (ppb)	20 (2014)	4.7	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers, erosion of natural deposits
Copper (ppm)	20 (2014)	0.66	0	1.3	.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Table 2 - SAMPLING RESULTS FOR SODIUM AND HARDNESS						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Sources of Contaminant
Sodium (ppm)	(2014)	63	52 - 72	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	(2014)	471	447 - 499	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

Table 3 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Sources of Contaminant
Fluoride (ppm)	(2014)	0.4	0.3 - 0.5	2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.

Nitrate as N (ppm)	(2015)	3.3	0.5 - 7.0	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate + Nitrite as N (ppm)	(2014)	2.5	ND - 5.6	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Gross Alpha (pCi/L)	(2008)	1.133	ND - 2.86	15	(0)	Erosion of natural deposits.

Table 4 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Sources of Contaminant
Chloride (ppm)	(2014)	59	55 - 67	500	n/a	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	(2014)	ND	ND - 120	300	n/a	Leaching from natural deposits; Industrial wastes
Specific Conductance (umhos/cm)	(2014)	1093	1040 - 1120	1600	n/a	Substances that form ions when in water; seawater influence
Sulfate (ppm)	(2014)	258	213 - 303	500	n/a	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	(2014)	743	700 - 780	1000	n/a	Runoff/leaching from natural deposits
Turbidity (NTU)	(2014)	0.4	0.2 - 0.7	5	n/a	Soil runoff

Table 5 - DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Typical Sources of Contaminant
Boron (ppm)	(2014)	0.9	0.5 - 1.3	1	The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

Table 6 - DETECTION OF FEDERAL DISINFECTANT/DISINFECTANT BYPRODUCT RULE

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL (MRDL)	PHG (MCLG)	Violation	Typical Sources of Contaminant
Total Trihalomethanes (TTHMs) (ppb)	(2015)	2.2	N/A	80	n/a	No	By-product of drinking water disinfection

Additional General Information on Drinking Water

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 the 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 (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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).

Lead Specific Language for Community Water Systems: 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 the service lines and home plumbing. *Meiners Oaks 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/lead>.

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Drinking Water Assessment Information

Assessment Information

A source water assessment was conducted for the WELL 01, WELL 02, WELL 04, and WELL 07 of the MEINERS OAKS CWD water system in March, 2001.

Well 01 - is considered most vulnerable to the following activities not associated with any detected contaminants:

- Agricultural Drainage
- Septic systems - low density [<1 /acre]

Well 02 - is considered most vulnerable to the following activities not associated with any detected contaminants:

- Agricultural Drainage
- Septic systems - low density [<1 /acre]

Well 04 - is considered most vulnerable to the following activities not associated with any detected contaminants:

- Agricultural Drainage
- Sewer collection systems
- Wells - Agricultural/ Irrigation

Well 07 - is considered most vulnerable to the following activities not associated with any detected contaminants:

- Agricultural Drainage
- Sewer collection systems
- Wells - Agricultural/ Irrigation

Acquiring Information

A copy of the complete assessment may be viewed at:

SWRCB Division of Drinking Water
1180 Eugenia Place
Suite 200
Carpinteria, CA 93013

You may request a summary of the assessment be sent to you by contacting:

Jeff Densmore
District Engineer
805 566 1326

residential uses.

4). 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 storm water runoff, agricultural application and septic systems.

5). Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

Lake Casitas has no urban or industrial water runoff and very few residents still live in the watershed. There is no oil, gas or mining production in our watershed.

Chloramine Disinfection

All public drinking water must be disinfected to prevent water-borne diseases. Casitas disinfects the water by adding chlorine and a small amount of ammonia to the water to form chloramines. Chloramine disinfection is approved by the SWRCB Division of Drinking Water and the US Environmental Protection Agency. Many United States and Canadian cities have used chloramines for decades to disinfect water. The Metropolitan Water District of Southern California supplies water to nearly 18 million people and has been successfully using chloramines for disinfection since 1984. Chloramines reduce the level of unwanted disinfection by-products in our water. Disinfection by-products are formed when chlorine mixes with naturally occurring organic material in water. Currently, regulated disinfection by-products include trihalomethanes and haloacetic acids. Chloramines stop the formation of these by-products and the chloraminated water has less of a chlorine taste and odor than chlorinated water. Chloramines do not pose a health hazard to the general population. Chloraminated water is safe for drinking, bathing, cooking and other normal uses. Two specific groups of people, however, do need to take special care with chloraminated water - kidney dialysis patients and tropical fish hobbyists.

Dialysis Patients Have Special Needs

Kidney patients are not harmed from drinking, cooking or bathing in chloraminated water. However, there is a problem that needs to be addressed for individuals who are undergoing dialysis treatment on artificial kidney machines. Chloramines must not be present in the water used in dialysis machines. Chloramines can be removed through a filtration system. We have worked with the SWRCB Division of Drinking Water to ensure that everyone involved with treatment of dialysis patients is alerted to the facts about chloraminated water.

Chloramines and Your Aquarium or Fishpond

Chloramines are toxic to fish or animals that use gills to breathe. While chlorine will evaporate rather quickly from standing water, it may take weeks for chloramines to disappear. Thus it is necessary to dechlorinate water used for aquariums and fishponds. We suggest using a filter system or a dechlorinating agent sold at most pet stores for fresh and saltwater aquariums and fishponds. Another option is to install a high-quality granular activated carbon (GAC) filter in your home. The chloramine residual in water used for fish should be kept below 0.1 parts per million. Contact your local pet store or fish shop for additional assistance.

Chloramines Are Safe for Plants and Swimming Pools

Chloramines will not affect the chlorine balance in your

backyard swimming pool. You still need to add chlorine to retard algae and bacterial growth. Chloramines have no effect on plants, vegetables or fruit trees. For more information on chloramines call 805-649-2251, ext. 120.

Fluoride

Casitas does not add fluoride, but there is some fluoride in the water that is naturally occurring. This level was tested at 0.4 mg/L in the lake source during 2015. For more information on fluoride check the SWRCB Division of Drinking Water's Fluoridation website for more information on fluoridation, oral health and current issues: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml

Lead and Copper

The latest results from Casitas' lead and copper testing were below the action levels. 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. Casitas 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>. Elevated levels of copper can occur when corrosive water causes leaching of copper plumbing. To prevent this Casitas has implemented a corrosion-control plan by adding a small amount of phosphate to the water to lower the corrosivity and reduce copper levels.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 at 1-800-426-4791.

Unregulated Contaminant Monitoring

Unregulated contaminant monitoring helps USEPA and the SWRCB Division of Drinking Water to determine where certain contaminants occur and whether the contaminants need to be regulated. Casitas sampled for unregulated contaminants during 2013; see the table for sampling results.

New Aeration System Installed During 2015

A new aeration system was installed in Lake Casitas during fall of 2015. The new system bubbles oxygen into the deeper portions of the lake near the dam. It is expected that the new system will improve water quality and help prevent some of the taste and odor problems that customers have been experiencing during summer and fall.



Casitas Keeps Your Water Safe

Casitas strives to provide you with water that meets or exceeds all federal and state standards for safe water. To ensure that you receive the highest quality drinking water, we test beyond what state and federal regulations mandate. This report shows the results of our monitoring for the period of January 1 through December 31, 2015 or the most recent testing period required.

Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo 0 hablo con alguien que lo entienda bien. Para la informacion llame por favor 805-649-2251.

Board meetings are open to the public and are held on the second

and fourth Wednesdays of each month at 3:00 p.m. at the district main office, 1055 Ventura Avenue, Oak View, CA, 93022. For additional details on the subjects outlined here and for more information about Casitas Municipal Water District, visit us at our Web site: www.casitaswater.org, or call Susan McMahon, Water Quality Supervisor, at 805-649-2251 extension 120.

Your Tap Water Is Safe to Drink

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 (SWRCB) Division of Drinking Water prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. SWRCB Division of Drinking Water regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water, including bottled water, may be reasonably 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 (1-800-426-4791).

Do You Know the Source of Your Water?

The Casitas Municipal Water District is supplied by a blend of ground water and surface water that is treated before it is distributed to the public. The surface water comes from Lake Casitas, located near the junction of Highway 150 and Santa Ana Road, and the ground water is drawn from the Mira Monte Well. Most of the watershed is federally protected to limit contamination of the lake. For additional protection we inspect the watershed



Casitas Municipal Water District installed a new hypolimnetic oxygenation system during September of 2015 to help minimize water quality problems in Lake Casitas.

on a regular basis.

For more information, you may review the 1995 Watershed Sanitary Survey and the 2016 update, which are available at our main office in Oak View.

Lake Casitas is considered to be most vulnerable to the following activities not associated with any detected contaminants: boat services (repair and refinishing), petroleum pipelines and recreation. There have been no contaminants detected in the water supply, although the lake is still vulnerable to activities located near this major source of our drinking water. The potential sources of contaminants include private sewage disposal systems; livestock and wildlife

grazing; limited pesticide and herbicide use; activities in the surrounding recreation area; unauthorized dumping; limited growth of new homes or urban areas; traffic accidents; and spills.

The 2002 Drinking Water Source Assessment for the Mira Monte Well is also available to the public at our office. This well is considered to be most vulnerable to the use of fertilizers and animal grazing, which raise nitrate levels in the water. In addition, the Mira Monte Well may be vulnerable to activities associated with an urban environment. However, these activities have not resulted in contamination of the well.

Nature and Man Influence Your Water Quality

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 human activity.

- Contaminants that may be present in source water include:
- 1). Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
 - 2). 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.
 - 3). Pesticides and herbicides that may come from a variety of sources such as agriculture, urban storm water runoff, and

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Casitas Water Quality Table 2016 (2015 Data)

Primary Health Standards

CONSTITUENTS	MCL (MRDL)	PHG, (MCLG) (MRDLG)	LAKE CASITAS TREATED WATER		MIRA MONTE WELL		DISTRIBUTION SYSTEM		Year Tested		Source of Contamination	
			LEVEL/AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	Lake or Distribution System	Well*		
Turbidity	Treatment technique (TT)²											
Filter Effluent Turbidity (NTU) ¹	1 NTU	NA	highest value = 0.26	NA	NA	NA	NA	NA	NA	2015	NA	Soil runoff
	95% < 0.2 NTU		99.8% of turbidity measurements < 0.2 NTU							2015	NA	
			98.3% = lowest monthly % of samples meeting turbidity limits									
MICROBIOLOGICAL												
Total Coliform Bacteria ³	> 1 positive sample/month	(0)						0	0	2015	NA	Naturally present in the environment
E. Coli Bacteria	> 1 positive sample/month	(0)						0	0	2015	NA	Human and animal fecal waste
INORGANIC CHEMICALS												
Barium (ppm)	1	2	ND	NA	0.1	NA	NA	NA	NA	2015	2013	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (ppm)	2.0	1	0.4	NA	0.4	NA	NA	NA	NA	2015	2013	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nickel (ppb)	100	12	ND	NA	28	NA	NA	NA	NA	2015	2013	Erosion of natural deposits; discharge from metal factories
Nitrate as N (ppm) ⁴	10	10	1.3	NA	9.8	9.1-10.5	0.6	0.4-0.7		2015	2014	Runoff and leaching from fertilizer use; leaching from tanks and sewerage; erosion from natural products
DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS												
Chloramines (ppm)	[4.0]	[4.0]						2.7	1.3-3.7	2015	NA	Drinking water disinfectant added for treatment
Trihalomethanes (ppb)	80	NA						66.4	33.9-124.0	2015	NA	By-product of drinking water disinfection
Haloacetic acids (ppb)	60	NA						34	13-40	2015	NA	By-product of drinking water disinfection
INDIVIDUAL TAP MONITORING FOR: LEAD AND COPPER	Regulatory Action Level	PHG	# of samples collected	Homes above RAL	Level detected at 90th percentile			Year Tested				
Lead (ppb)	15	0.2	23	0	ND			2014	NA	Internal corrosion of household plumbing systems; discharges from industrial manufacturers; erosion of natural products		
Copper (ppm) ⁵	1.3	0.3	23	0	1.0			2014	NA	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives		

TERMS USED IN THIS REPORT:

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 (USEPA).

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.

Notification Level: Health based advisory levels established by the State Board* for chemicals in drinking water that lack MCLs.

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

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.

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

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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

UCMR 3: Unregulated Monitoring Contaminant Rule (Third round). This monitoring helps the EPA and The State Board* determine where certain contaminants occur and whether the contaminants need to be regulated.

Key To Table (ACRONYMS)

NA = Not Applicable
 ND = None Detected
 NL = Notification Level
 NS = No Sample
 NTU = Nephelometric Turbidity Units (a measure of turbidity)
 ppt = Parts per trillion, or nanograms per liter (ng/L)
 pCi/L = Picocuries per liter (a measure of radiation)
 ppm = Parts per million, or milligrams per liter (mg/L)
 ppb = Parts per billion, or micrograms per liter (ug/L)
 TT = Treatment Technique
 uS/cm = Micro Siemens per Centimeter (a measure of specific conductance)

Water Quality Table Footnotes:

- Turbidity is a measure of the cloudiness of water and is a good measure of water quality and filtration performance. 99.8 % of the samples tested for turbidity were below the required TT level of 0.2 NTU and 98.3% is the lowest monthly percentage of samples meeting the turbidity limits.
- During 2015 Casitas collected 159 samples for total coliform bacteria testing according to the Total Coliform Rule. Total Coliform bacteria were not detected in any of these samples.
- Mira Monte Well is above the MCL for nitrate, however the well water is blended with lake Casitas water with the resulting nitrate level averaging 0.6 ppm as nitrogen.
- 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.
- Casitas has implemented a corrosion control plan by adding a small amount of phosphate to the water to lower corrosivity and reduce copper levels.
- Elevated manganese levels created taste/odor issues during the fall season of 2015; the problem was caused by low levels of dissolved oxygen in the lake.
- These results are below the detection limits for reporting and can only be used as an estimate. For vanadium sampling the highest level (in ppb) for the lake was 1.2 (ND for 2014), the well was 0.76 and the distribution system was 1.2.

* CA State Water Resources Control Board

Secondary Aesthetic Standards¹

CONSTITUENTS	State MCL	PHG/NL	LAKE CASITAS TREATED WATER		MIRA MONTE WELL		DISTRIBUTION SYSTEM		Year Tested		Source of Contamination	
			LEVEL/AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	Lake	Well ²		
Turbidity(NTU)	5	NA	ND	NA	0.4	NA			2015	2013	Soil run-off	
Total Dissolved Solids (ppm)	1000	NA	360	NA	420	NA			2015	2013	Run-off/leaching from natural deposits	
Specific Conductance (uS/cm)	1600	NA	557	NA	679	NA			2015	2013	Substances that form ions in water; seawater influence	
Chloride (ppm)	500	NA	20	NA	66	NA			2015	2013	Run-off/leaching from natural deposits; seawater influence	
Sulfate (ppm)	500	NA	139	NA	40	NA			2015	2013	Run-off /leaching from natural deposits; industrial wastes	
Additional Monitoring												
UCMR 3 Monitoring												
Chlorate (ppb)	800	NA	ND	ND	176	65-290	ND	ND	2013	2013	A disinfection by-product	
Molybdenum (ppb)	NA	NA	3.3	3.1-3.4	1.0	ND-1.9	3.4	3.2-3.5	2013	2013	A naturally-occurring element found in ores and present in plants, animals and bacteria	
Strontium (ppb)	NA	NA	703	660-750	520	470-570	723	670-770	2013	2013	A naturally-occurring element	
Vanadium (ppb) ³	50	NA	See footnote g		See footnote g		See footnote g		2013	2013	A naturally-occurring elemental metal	
ADDITIONAL CONSTITUENTS (UNREGULATED)												
Alkalinity (Total as CaCO3 ppm)	NA	NA	110	NA	160	NA			2015	2013	A measure of the capacity to neutralize acid	
Boron (ppb)	NA	(1000)	200	NA	100	NA			2015	2013	A naturally-occurring element	
Calcium (ppm)	NA	NA	53	NA	52	NA			2015	2013	A naturally-occurring element	
Magnesium (ppm)	NA	NA	26	NA	15	NA			2015	2013	A naturally-occurring element	
Potassium (ppm)	NA	NA	3	NA	ND	NA			2015	2013	A naturally-occurring element	
Total Hardness (ppm)	NA	NA	279 (13.9 grains/gal)	NA	191	NA			2015	2013	"Hardness" is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.	
Sodium (ppm)	NA	NA	30	NA	54	NA			2015	2013	"Sodium" refers to the salt present in the water and is generally naturally occurring.	