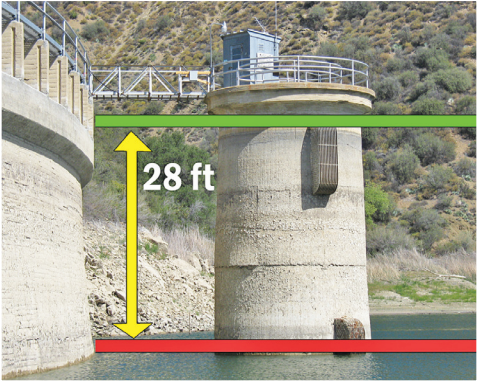




# Water News

Detailed Test Results & Information About Drinking Water in 2012

## YOUR ANNUAL DRINKING WATER QUALITY REPORT: Water Quality Continues to Exceed Standards



Jameson Lake Intake Tower, May 1, 2013  
28 feet below normal

### WATER SHORTAGE ALERT

The last two years of significantly below average rainfall have adversely affected our local water supplies. In fact, the two back-to-back years of 2012 and 2013 are our lowest recorded consecutive rainfall years since 1925. The District is facing 2013-14 with its lowest available local water supply in over a decade.

Customer water use has increased by 10% compared to last year, further compounding our water shortage condition. We are nearing critical low water levels; without sufficient rainfall, there are likely to be mandatory water use restrictions in 2014-15.

To help offset the local water supply reduction, the District has scheduled both the delivery of its full State Water allocation and all of our own supplemental, banked State Water supply. State Water supplies are limited however, and we need to prepare today for possible future water shortages.

We are asking you, our customers to review your current water usage and voluntarily reduce water use by at least 10%. We continue to offer a free property water use audit, with the goal of providing more efficient water use and water savings to our customers. Please contact our Water Conservation Specialist at 969-2271 to schedule an audit. The water we save today will be available for tomorrow.

*Once again, we are very pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the quality water and services we have delivered to you over the past year. Montecito's drinking water meets and is better than all drinking water quality requirements.*

This report offers the results of our extensive water quality tests conducted during 2012. In addition, the report provides a description of where your water comes from, answers common questions about water quality and offers other useful information.

The District participated in additional voluntary sampling to assess the potential of other surface water and groundwater contaminants. No contaminants were detected in any samples assessed. The District is fortunate that the watersheds filling our local lakes and reservoirs provide us with high-quality water.

Bella Vista Water Treatment Plant



### Steps We Take to Ensure That the Water You Drink Is Safe and Healthful

- STEP 1: We begin with a high-quality water supply.
- STEP 2: We treat the water with a variety of filtration processes.
- STEP 3: We add trace amounts of chlorine to disinfect the water as it travels through the water system.
- STEP 4: We test the water. Samples from various locations around the District are analyzed each day in our own laboratory or by independent state-certified labs. Additional testing is conducted each week for bacterial contamination. Results of these and other tests are reported regularly to state authorities.

### How Accurate Are The Tests?

The tests, using ultra sensitive measuring equipment, are so accurate that we are able to detect substances as small as one-half part per billion!

# High-Quality Water Supply

More than half of the District’s water supply comes from Lake Cachuma.

Other water sources include Jameson Lake, Alder and Fox Creeks and a limited groundwater supply. Water from all these sources is thoroughly treated before it is delivered to our customers.

Our water quality program is carried out by state-certified water quality experts. Regular water-quality tests ensure that your drinking water is safe.

## 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 storm water 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 storm water 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 storm water 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.



## Water & Health

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 U.S. Environmental Protection Agency’s (USEPA) Safe Drinking Water Hotline (1-800-426-4791).

## People with Special Needs

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).

## Water Quality Standards

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

### 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.

**Primary Drinking Water Standard (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 affect taste, odor, or appearance of drinking water. Contaminants with SDWS do not affect the health at MCL levels.

### 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.

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

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

**mg/L:** Milligrams per liter, or parts per million. 1 mg/L is equal to about one drop in 17 gallons of water.

**ug/L:** Micrograms per liter, or parts per billion. 1 ug/L is equal to about one drop in 17,000 gallons of water.

**< :** Less than.

**NA:** Not applicable.

**NS:** No Standard.

**ND:** Non-detected.

**pCi/L:** Pico curies per liter, a measure of radiation

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

**NTU:** Nephelometric turbidity unit.

**RAA:** Running annual average.

### Footnotes:

<sup>1</sup>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.

<sup>2</sup>Surface water sources include the District’s Jameson Lake and Lake Cachuma. The District’s Amapola Well, Ennisbrook Well No. 2, and Las Entradas Well No. 1 were used as groundwater supply sources.

<sup>3</sup>Turbidity is a measure of the cloudiness of the water. Montecito Water District monitors for it continuously because turbidity is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants. 100% of the District’s samples met the Turbidity Performance standard. The highest single surface water turbidity measurement during the year was 0.13 NTU.

<sup>4</sup>An average number of 51 coliform samples were collected each month at 12 District sampling stations in compliance with the Federal Coliform Rule.



RESULTS OF 2012 DRINKING WATER QUALITY TESTS

The table below lists all the drinking water contaminants and other constituents that we detected during the 2012 calendar year. We tested for over 180 contaminants and constituents. Not included in the list below are substances for which we test but were not detected. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing conducted between January 1 and December 31, 2012<sup>1,2</sup>.

Primary Standards (PDWS)	Units	Maximum Contaminant Level	Public Health Goal (MCLG)	Jameson Lake Average	Jameson Lake Range	Ground Water Average	Ground Water Range	Cachuma Lake Average	Cachuma Lake Range	Major Sources of Contamination in Drinking Water
Water Clarity										
Treated Turbidity <sup>3</sup>	NTU	TT = 1 NTU TT = 95% of Samples	NA	0.06	0.04 - 0.12 100%	0.10	ND - 0.40 100%	NA	ND - 0.05 100%	Soil runoff.
Radioactive Contaminants										
Gross Alpha Particle Activity	pCi/L	15	(0)	0.67	0.67	1.25	0.83 - 1.67	1.82	NA	Erosion of natural deposits.
Inorganic Contaminants										
Boron	ug/L	1000 (RAL)	NA	ND	ND	67	ND - 100	0.44	0.44	Naturally occurring element in soil and water
Fluoride	mg/L	2	1	0.25	0.2 - 0.3	0.5	0.4 - 0.6	0.38	0.34 - 0.43	Erosion of natural deposits; water additive that promotes strong teeth.
Nitrate as NO3 <sup>5</sup>	mg/L	45	45	ND	ND	11.6	3.4 - 19.7	ND	NA	Runoff or leaching from fertilizer use; leaching from septic tanks and sewage; erosion from natural deposits
Selenium	ug/L	50	30	ND	ND	2.5	ND - 5.0	ND	NA	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive).
Primary Standards for Distribution System	Units	Maximum Contaminant Level	Public Health Goal (MCLG)	Distribution System Average		Distribution System Range				Major Sources of Contamination in Drinking Water
Disinfectant										
Free Chlorine Residual	mg/L	MRDLG, 4.0	MRDLG, 4.0	0.75		0.20 - 2.00				By-product of drinking water chlorination.
Disinfection By Products										
Total Trihalomethanes	ug/L	80	NA	54.1		40.0 - 75.6				By-product of drinking water chlorination.
Haloacetic Acids	ug/L	60	NA	23		10 - 46				By-product of drinking water chlorination.
Microbiological Contaminant Samples										
Total Coliform Bacteria <sup>4</sup>	% Tests Positive	<5% of Monthly Samples	0	0.32%		0% - 1.96%				Naturally present in the environment.
Lead and Copper Rule	Units	RAL	PHG	Samples Collected		Above RAL		90th Percentile		
Lead <sup>6</sup>	ug/L	15	0.2	30		0		2		Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits, leaching from wood preservatives.
Copper <sup>6</sup>	ug/L	1300	300	30		0		138		
Secondary Drinking Water Standards (SDWS)	Units	Maximum Contaminant Level		Jameson Lake Average	Jameson Lake Range	Ground Water Average	Ground Water Range	Cachuma Lake Average	Cachuma Lake Range	Major Sources of Contamination in Drinking Water
Aesthetic Standards										
Aluminum	ug/L	200		20	ND - 40	10	ND - 20	40	20 - 180	Erosion of natural deposits; residual from some surface water treatment processes.
Color	Units	15		ND	ND	ND	ND	ND	NA	Naturally-occurring organic minerals.
Chloride	mg/L	500		7	5 - 8	145	79 - 210	18.7	16.8 22.8	Runoff or leaching from natural deposits; seawater influence.
Iron	ug/L	300		ND	ND	ND	ND	3	ND - 42	Leaching from natural deposits; industrial wastes.
Manganese	ug/L	50		ND	ND	10	ND - 20	0.6	ND - 5.3	Leaching from natural deposits.
Specific Conductance	uS/cm	1600		740	736 - 744	1275	1050 - 1500	870	754 - 1023	Substances that form ions in water.
Sulfate	mg/L	500		189	187 - 190	221	211 - 230	261	216 - 339	Runoff or leaching from natural deposits; industrial wastes.
Total Dissolved Solids	mg/L	1000		475	470 - 480	830	700 - 960	618	516 - 754	Runoff or leaching from natural deposits.
Zinc	ug/L	5000		ND	ND	40	ND - 80	10	ND - 30	Naturally-occurring in trace amounts, but can be detected in soft, acidic water systems.
Additional Constituents Analyzed										
pH	pH units	NS		8.23	8.00 - 8.50	7.4	7.3 - 7.50	8.16	7.98 - 8.28	
Total Hardness <sup>7</sup>	mg/L	NS		347	342 - 351	509	425 - 593	377	333 - 436	
Total Alkalinity	mg/L	NS		185	180 - 190	210	200 - 220	186	170 - 211	
Calcium	mg/L	NS		95	94 - 96	134	106 - 162	84.2	72.8 - 96.7	
Magnesium	mg/L	NS		27	26 - 27	43	39 - 46	42.1	35.5 - 51.6	
Sodium	mg/L	NS		28	26 - 29	68	61 - 75	47	39.8 - 57.4	
Potassium	mg/L	NS		2.0	2.0 - 2.0	1.0	1.0 - 1.0	3.91	3.36 - 4.72	

<sup>5</sup>**Nitrate** in drinking water at levels above 45 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant’s blood to carry oxygen, resulting in serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from

your health care provider. MWD’s highest nitrate level in 2012 was 19.7 mg/L.

**<sup>6</sup>Lead & Copper Rule**

Every three years, 30 residences are tested for lead and copper levels at the tap. The most recent set of samples was collected in 2010. All of the samples were well below the regulatory action level (RAL). Lead (RAL 12.0 ug/L) was detected in 22 samples with the 90th percentile value registering 2.0 ug/L. Copper (RAL 1,300 ug/L) was detected in 30 samples with the 90th percentile value registering

138 ug/L. It has been found that, 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. Montecito 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

<sup>7</sup>Surface water has a hardness range of 19 to 26 grains per gallon; groundwater has a range of 25 to 35 grains per gallon.

# CAPITAL IMPROVEMENT PROJECT UPDATE



## Paden Well 2 Project

The District is pleased to report that it has completed the replacement of a 1970s era water well that had become inoperable. The new well, drilled and developed in 2012 has nearly double the capacity of the previous well with better water quality. The contribution of groundwater to the District's overall water supply portfolio is small; however, this well, with its associated treatment plant, provides a much-needed local potable supply that augments important groundwater production. Groundwater pumping provides a less costly water supply to our community, therefore reducing the need to import expensive State Water. This new high quality water source is anticipated to produce up to 45 million gallons annually, and will help the District manage its water supply and keep costs as low as possible.

If you have questions, about these or any other Capital Improvement Projects, please contact Karl Meier, District Engineering Manager at 805/969-2271 or at [karl@montecitowater.com](mailto:karl@montecitowater.com).

## Cater Water Treatment Plant Improved

Construction on the \$20 million Cater Water Treatment Plant Ozone Project was completed in June 2013, after nearly two years of construction. Through an agreement with the City of Santa Barbara, the District is responsible for approximately 20% of the total project cost. This water treatment facility, owned and operated by the City, treats Lake Cachuma surface water delivered to our District. This new ozone treatment process project will help reduce disinfection byproducts. The use of ozone as a primary disinfectant is the latest advancement in water treatment that best enables the City and the District to remain in compliance with more stringent water quality regulations.



Chad Hurshman  
Water Treatment Superintendent

## For More Information About Water Quality

- **Who to Contact:** For answers to your questions about water quality, please contact Chad Hurshman, Water Treatment and Production Superintendent, at 969-7924. Chad joined the District in 2001 and became the Treatment Superintendent in 2006. He holds a State Level 4 Treatment Certification and is a valued and experienced employee serving the District and our community.
- **Source Water Assessment:** A comprehensive source water assessment of the District's surface water sources was completed in December 2010. A copy of this report is available for public inspection at the District Office.
- **Public Information:** To learn more about water, the District, or public participation opportunities, please call Tom Mosby, General Manager, at 969-2271, or visit our website at [www.montecitowater.com](http://www.montecitowater.com)
- **En Español** Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.



583 San Ysidro Road  
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## Your Water Quality Report

Please visit us at [montecitowater.com](http://montecitowater.com). Learn about the District's history, Board of Directors, agendas and minutes, newsletters, ongoing construction projects, water quality, billing information, conservation and more.

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