



**Dear Consumers,**

In 1996, the United States Congress amended the Safe Drinking Water Act requiring water providers to deliver an annual Water Quality Report to their consumers. The report is intended to provide you, the consumer, with information regarding the quality and safe delivery of your drinking water.

CVWD provides water service to the City of Rancho Cucamonga, portions of the cities of Upland, Ontario and

Fontana, plus an unincorporated area of San Bernardino County. CVWD has approximately 50,000 water connections and serves a population of nearly 190,000 people. CVWD's sole purpose is to provide high quality, safe and reliable water and wastewater services, while practicing good stewardship of natural and financial resources, and we are pleased to report there were no water quality violations in 2011.

CVWD is committed to keeping its consumers informed; you are encouraged

to read this report in its entirety. Informed consumers are more likely to help protect their drinking water supplies and understand the true costs and value associated with providing drinking water to our community. CVWD is committed to ensuring a reliable water supply now and into the future.

Sincerely,

Cucamonga Valley Board of Directors

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**CVWD Water Sources**

The water furnished to CVWD's consumers comes from several sources including imported water from Northern California, groundwater pumped from local aquifers, and a combination of waters collected from canyons and tunnels along the local mountains.

- **Imported Water:** Forty-two percent of the water delivered to CVWD's consumers in 2011 was imported from Northern California. CVWD purchases water delivered from Northern California via the State Water Project. This water is treated at CVWD's Lloyd W. Michael water treatment plant. The treated water flows into storage reservoirs and then into the distribution system.
- **Groundwater:** Forty-eight percent of the water delivered by CVWD in 2011 was groundwater pumped from the Cucamonga and Chino Basin aquifers located hundreds of feet below the earth's surface. The water is pumped up through a system of wells, disinfected, and then stored in reservoirs.
- **Local Surface and Tunnel Water:** Ten percent of the water delivered in 2011 was supplied by local surface and tunnel water sources. These sources include Cucamonga Canyon, Deer Canyon, Day Canyon, East Etiwanda Canyon, and a number of local tunnels in the San Gabriel Mountains. This water is treated at CVWD's Arthur H. Bridge and Royer Nesbit water treatment plants.

**Your Drinking Water Sources**

The sources of drinking 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 drinking 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 U.S. Environmental Protection Agency (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. (CDPH regulations also establish limits for contaminants in bottled water that provide the same protection for public health)

**Contamination Vulnerability of CVWD's Water Sources**

In 2003, CVWD completed a source water assessment to determine the contamination vulnerabilities of CVWD's water resources. Our sources are considered vulnerable to contamination from activities associated with former citrus agriculture, sewer collection systems, leaking or improper disposal of petroleum products, and recreation activities on or near water supplies.

You may request a summary of the assessment by contacting the California Department of Public Health sanitary engineer for CVWD at (909) 383-4328 or CVWD at (909) 987-2591.

**How Your Water is Treated and Tested**

CVWD uses state-of-the-art technologies to treat and test the water served to its consumers. The District operates a total of three water treatment facilities that must meet surface water treatment regulations established by the EPA and the CDPH. These facilities are staffed by professional Water Treatment Plant Operators certified by the CDPH.

Before, during, and after treatment, CVWD staff members collect and analyze samples of water every four hours, twenty-four hours a day, seven days a week, to ensure customers are provided with the highest-quality water. In addition to routine testing performed at the treatment plants, water throughout the distribution system is analyzed weekly for disinfectant residuals and bacteriological content. Thousands of other tests are conducted throughout the year to ensure your water meets all federal and state regulations

**About Your Water**

In 2011, CVWD collected over 40,000 water samples that were analyzed for more than 170 different contaminants. Only contaminants that were detected are included in the tables provided. If a contaminant is not listed, it was not detected in 2011. 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. The data reported in the tables is compiled from analyses performed in 2011, except where noted.

**Table 1** lists contaminants regulated by **Primary Drinking Water Standards**. These standards have been developed to control contaminants that have been determined to pose a risk to health. Compliance with drinking water standards is generally determined by the average level of a contaminant. In the event a single sample exceeds the Maximum Contaminant Level (MCL), a series of repeat samples is analyzed, and the results are averaged to determine compliance. In an effort to keep our consumers informed, this report contains both the detected range, which in some instances may exceed the MCL, and the average, demonstrating compliance.

**Table 2** lists contaminants regulated by **Secondary Drinking Water Standards**. Generally, these standards have been developed to address the aesthetic properties of drinking water. In addition to constituents regulated by secondary standards, we have included data regarding Sodium and Hardness, which may be of interest to consumers.

**Table 3** contains data on contaminants that are not regulated.

Table 1 - Contaminants Regulated by Primary Drinking Water Standards Groundwater/Surface water sampled in 2011						
Contaminant	Units	Primary MCL [MRDL]	PHG (MCLG) [MRDLG]	Detected Range (or as noted)	Average (or as noted)	Major Sources in Drinking Water
<b>Inorganic &amp; Organic</b>						
Aluminum	ppm	1.0	0.6	0-0.17	0.01	Erosion of natural deposits; residue from some surface water treatment processes
Dibromochloropropane	ppt	200	1.7	0-150	30	Banned nematocide that may still be present in soils due to leaching from former agriculture uses
Fluoride	ppm	2.0	1.0	0-0.45	0.24	Erosion of natural deposits
Nitrate (as NO <sub>3</sub> )	ppm	45	45	0-26	10.2	Runoff and leaching from fertilizer use; erosion of natural deposits
<b>Disinfectant, Disinfectant Byproducts &amp; Precursors</b>						
Chlorine Residual	ppm	[4]	[4]	0.01-1.72	0.73	Drinking water disinfectant added for treatment
Total Trihalomethanes	ppb	80	N/A	0-110	46	Byproduct of drinking water chlorination
Haloacetic Acids	ppb	60	N/A	0-46	18	Byproduct of drinking water disinfection
Total Organic Carbon	ppm	TT	N/A	0.42-2.5	1.3	Various natural and manmade sources
<b>Filtration Performance &amp; Microbiological</b>						
Turbidity	As Indicated	TT	NA	100% (minimum < 0.3NTU)	0.10 NTU (maximum)	Soil runoff. Turbidity is a measure of the cloudiness of the water; it is a good indicator of the effectiveness of our filtration system
Total Coliform	% positive	Less than 5%	(0)	0-0.8	0.8 (maximum)	Naturally present in the environment
<b>Lead &amp; Copper measured at the consumers tap in 2009</b>						
Lead	ppb	15 (Action Level)	0.2	0.0 (90th percentile value)	(0 of 51 samples exceeded AL)	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper	ppm	1.3 (Action Level)	0.3	0.2 (90th percentile value)	(0 of 51 samples exceeded AL)	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Table 2 - Contaminants Regulated by Secondary Drinking Water Standards (plus Sodium and Hardness) Groundwater/Surface water sampled in 2011						
Contaminant	Units	Secondary MCL	Detected Range	Average	Major Sources in Drinking Water	
Aluminum	ppb	200	0-170	14	Erosion of natural deposits; residual from some surface water treatment processes	
Apparent color Unfiltered	Units	15	0-5	0.02	Naturally-occurring organic material	
Chloride	ppm	500	1.8-40	7.5	Runoff/leaching from natural deposits; seawater influence	
Iron	ppb	300	0-220	16	Leaching from natural deposits; industrial wastes	
Manganese	ppb	50	0-61	1.8	Leaching from natural deposits	
Sodium	ppm	N/A	7.1-32	17.9	"Sodium" refers to the salt present in the water and is generally naturally occurring	
Specific Conductance	micromhos	1600	210-460	314	Substances that form ions when in water; seawater influence	
Sulfate	ppm	500	4.8-54	16.9	Runoff/leaching from natural deposits; industrial wastes	
Total Dissolved Solids	ppm	1000	130-340	203	Runoff/leaching from natural deposits	
Turbidity	NTU	5	0-1.6	0.06	Refer to Turbidity in Table 1	
Total Hardness (as CaCO <sub>3</sub> )	ppm	N/A	58-200	122	Leaching from natural deposits. Note: Average Total Hardness level in grains per gallon is 7.1 gpg (divide ppm by 17.1)	

Table 3 - Unregulated Contaminants Groundwater/Surface water sampled in 2011				
Contaminant	Units	Notification Level (Proposed MCL)	Detected Range	Average
Boron	ppb	1000	1-170	13
N-nitrosodimethylamine (NDMA)	ppb	0.01	0-0.004	0
pH	St/Units	N/A	7.3-8.4	7.97
Vanadium	ppb	50	0-44	17

## KEY TERMS:

Below are terms to assist consumers in understanding 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.
- 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, reporting 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 that a water system must follow.

**ppm** - parts per million or milligrams per Liter (mg/L). Equivalent to: one second in eleven days and 16 hours.

**ppb** - parts per billion or micrograms per Liter (ug/L). Equivalent to: one second in thirty-two years.

**ppt** - parts per trillion or nanograms per Liter (ng/L). Equivalent to: one second in three hundred twenty centuries.

**pCi/L** - Picocuries per Liter, a measure of radioactivity.

**TON** - Threshold Odor Number. A number indicating the greatest dilution of a water sample.

**NTU** - Nephelometric Turbidity unit. The cloudiness in a water sample.

**Micromhos** - Unit of electrical conductance.

## Contaminants Requiring Special Consideration

Certain contaminants pose more risk than others and certain groups or individuals may be at greater risk than others. The following information defines contaminants that deserve special consideration, to help consumers make informed decisions regarding their drinking water.

### Nitrate

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 a 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 certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

### Lead

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. CVWD 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).

## Notice of Extension of the Stage 2 Disinfectants/Disinfection Byproduct Rule

CVWD has been granted a 24-month extension to comply with the Stage 2 Disinfectant/Disinfection Byproduct Rule MCLs. The extension expires on 4/01/2014. If you have questions regarding this information please contact J.R. Rivas, Water Quality Coordinator, at (909) 987-2591.

## More Information Available

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 (1-800-426-4791) or go to <http://water.epa.gov/drink/index.cfm>.

## Special Precautions

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).

## Stay Informed

CVWD encourages customers to stay informed by attending our regularly scheduled Board meetings, which are held on the 2<sup>nd</sup> and 4<sup>th</sup> Tuesday of each month at 6:00 p.m. Board meetings are held at CVWD office located at 10440 Ashford Street, Rancho Cucamonga. Meeting agendas can be found on the CVWD website at [www.cvwdwater.com](http://www.cvwdwater.com).

## Questions?

If you have any questions regarding this report, please contact: J.R. Rivas, Water Quality Coordinator, at (909) 987-2591.

## NOTICIA IMPORTANTE

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

