# Substances That Could Be in Water

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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. 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.

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 can 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, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems; Radioactive Contaminants, that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at 800-426-4791.

Maintaining High Standards

<mark>he Crescenta Valley Water District (CVWD)</mark> supplies nearly 1.53 billion gallons of water each year to approximately 36,000 customers in the Crescenta Valley, which includes the unincorporated areas of La Crescenta, Montrose, and portions of Glendale and La Cañada-Flintridge.

For 2009, your tap water met all U.S. EPA and State drinking water health standards. CVWD vigilantly safeguards its water supplies, and once again the District is proud to report that the system did not violate a maximum contaminant level (MCL).

## Important Health Information

ome 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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 800-426-4791 or www.epa.gov/safewater/hotline/.

#### Copper Compliance

In June 2007, the District had copper concentrations (sampled at customers' inside taps) that exceeded the California Department of Public Health's (CDPH) 1,300 ppb Action Level. The District came back into compliance in 2008 and remains below the copper Action Level. Currently, the District is conducting enhanced monitoring (60 samples, twice yearly) to ensure CVWD remains in compliance.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the Action Level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the Action Level over many years may suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Crescenta Valley Water District La Crescenta, CA 91214 2700 Foothill Blvd.

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## Sources of Water

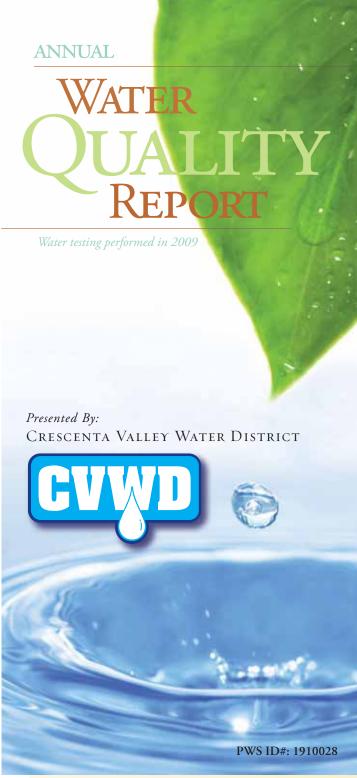
n 2009, approximately 60 percent of CVWD's source I water came from local ground water supply in the Verdugo Basin. The majority of CVWD's ground water wells are located along the Verdugo Wash, south of Honolulu Avenue. Local groundwater is dinsinfeted with chlorine before blending with MWD's surface water. The remaining 40 percent of CVWD's source water came from imported surface water supplied by Foothill Municipal Water District (FMWD), which is a member agency to Metropolitan Water District of Southern California (MWD). MWD supplies surface water from the State Water Project in Northern California and the Colorado River via the Colorado River Aqueduct and is responsible for water quality testing of their treated surface water. In emergency situations, an interconnection between CVWD and The City of Glendale can be opened to supply our customers. Another interconnection between CVWD and the Los Angeles Department of Water and Power is being planned to further ensure our water system's reliability.

When the well's dry, we know THE WORTH OF WATER. - Benjamin Franklin

# Source Water Assessment

A source water assessment was conducted for all the active sources for CVWD in August 2002. The sources are considered most vulnerable to dry cleaners and known contaminant plumes associated with automobile-body and repair shops, gas stations, sewer collection systems, historic gas stations, furniture repair/ manufacturing, and historic waste dumps/landfills.

A copy of the completed assessment may be viewed at the Drinking Water Field Operations Branch, 500 North Central Avenue, Suite 500, Glendale, CA 91203. You may request a summary of the assessment be sent to you by contacting Jeff O'Keefe, District Engineer, at 818-551-2044.



#### **District Information**

he District is governed by a five-member Board of Directors, elected at-large, who meet the first and third Tuesday of each month at CVWD's main office. Public input is encouraged. Information regarding the District's Board and meetings can be found on the District website at www.cvwd.com.

# Methyl-Tertiary-Butyl Ether (MTBE)

TBE is a fuel oxygenate that was used in gasoline to reduce carbon monoxide and ozone levels caused by auto emissions. Releases of MTBE into ground and surface water can occur through leaking underground storage tanks and pipelines, spills, emissions from marine engines into lakes and reservoirs, and to some extent from air deposition. MTBE can cause drinking water to take on a bad odor and taste. The District has one well out of service due to levels of MTBE over the maximum contamination level (MCL). The District monitors for MTBE weekly to ensure that none of the District's other sources are affected. For additional information, please visit the U.S. EPA's drinking water website at www.epa.gov.

## Information on the Internet

The U.S. EPA Office of Water (www.epa.gov/ watrhome) and the Centers for Disease Control and Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation and public health.

# **Questions?**

For more information about this report, or for any questions relating to your drinking water, please call Christy Scott, Program Specialist, at 818-248-3925 or email cjscott@cvwd.com.

#### **Detected Contaminants**

The following Detected Contaminant table is a detailed list that compares the quality of your tap water to State and Federal drinking water standards. This table lists all the regulated drinking water contaminants (and unregulated contaminants requiring monitoring) that were detected in the 2009 calendar year. More than 100 regulated contaminants have been tested but were not detected in the District's drinking water; the list of non-detected contaminants is not included in the table.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AVERAGE AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2009	10	0.004	ND	ND-4.7	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2009	1	2	0.12	ND-0.14	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (ppm)	2009	2.0	1	0.24	0.18-0.32	No	Naturally occurring
Gross Alpha Particle Activity (pCi/L)	2009	15	(0)	2.90	0.69–6.90	No	Erosion of natural deposits
Haloacetic Acids (ppb)	2009	60	NA	16	1.0–45.5	No	By-product of drinking water disinfection
Mercury [inorganic] (ppb)	2009	2	1.2	0.09	ND-1.0	No	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland
Methyl tert-Butyl Ether [MTBE] (ppb)	2009	13	13	0.01	ND-1.6	No	Leaking from underground gasoline storage tanks; discharge from petroleum and chemical factories
Nickel (ppb)	2009	100	12	3.09	ND-18	No	Erosion of natural deposits; discharge from metal factories
Nitrate [as nitrate] (ppm)	2009	45	45	27.9	13–35	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Perchlorate (ppb)	2009	6	6	0.40	2.0-3.5	No	See footnote #2
Radium 226 (pCi/L)	2009	5	0.05	0.11	ND-0.24	No	Erosion of natural deposits
Radium 228 (pCi/L)	2009	5	0.019	0.47	0.30-0.74	No	Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2009	80	NA	37.4	15–69.4	No	By-product of drinking water disinfection
Tetrachloroethylene [PCE] (ppb)	2009	5	0.06	0.12	ND-3.8	No	Discharge from factories, dry cleaners, and auto shops (metal degreaser)
Total Coliform Bacteria [Total Coliform Rule] (% positive samples)	2009	More than 5.0% of monthly samples are positive	(0)	2	NA	No	Naturally present in the environment
Turbidity (NTU)	2009	TT	NA	0.35	0.27-0.35	No	Soil runoff
<b>Uranium</b> (pCi/L)	2009	20	0.43	3.10	1.10-7.20	No	Erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AVERAGE AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2009	1.3	0.3	0.76	2/77	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2009	15	0.2	4.04	7/68	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AVERAGE AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2009	500	NS	77.3	5.1–96	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2009	15	NS	1	1–3	No	Naturally occurring organic materials
Iron (ppb)	2009	300	NS	15.9	ND-56	No	Leaching from natural deposits; industrial wastes
Specific Conductance (μS/cm)	2009	1,600	NS	788	327–884	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2009	500	NS	122	28-140	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2009	1,000	NS	566	220–640	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2009	5	NS	0.09	ND-2.6	No	Soil runoff
Zinc (ppm)	2009	5.0	NS	ND	ND-0.05	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED AND OTHER SUBSTANCES						
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AVERAGE AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE		
Alkalinity (ppm)	2009	147	130–170	Naturally present in the environment		
Boron (ppb)	2009	15	ND-100	Erosion of natural deposits		
Chromium VI [Hexavalent Chromium] (ppb)	2009	0.40	0.28-0.52	NA		
Hardness as CaCO3 <sup>2</sup> (ppm)	2009	351	150-420	Leaching from natural deposits		
<b>pH</b> (Units)	2009	7.7	6.8-8.4	Naturally present in the environment		
Potassium (ppm)	2009	3.7	3-4.5	Naturally present in the environment		
Sodium (ppm)	2009	39	18–59	Runoff/leaching from natural deposits; seawater influence		
Vanadium (ppb)	2009	1.5	ND-4.3	Erosion of natural deposits		

Perchlorate is an inorganic chemical that occurs both naturally and as a manufactured compound. Used in solid rocket propellant, fireworks, explosives, flares, matches, and other industries, perchlorate usually gets into drinking water as a result of environmental contamination from aerospace or other industries. The use of sodium hypochlorite in water treatment has the potential to introduce detectable perchlorate into the environment

<sup>2</sup>To convert the data from mg/L CaCO3 hardness to grains per gallons hardness, divide the average by 17.1 (351 / 17.1 = 20.5 grains per gallon).

## Lead and Drinking Water

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. We are 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.

## **Definitions**

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

μS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

MCL (Maximum Contaminant Level): 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 (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

MCLG (Maximum Contaminant Level **Goal):** 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. EPA.

MRDL (Maximum Residual Disinfectant **Level):** 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

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

PHG (Public Health Goal): 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

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in 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. High 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 certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. CVWD's daily testing of nitrate levels indicates that the levels were below the 45 mg/L level.