Annual WATER QUALITY REPORT

Reporting Year 2012

Presented By
Crescenta Valley Water District

PWS ID#: 1910028

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

이 만내는 매우 중요합니다.
본인을 위해 번역인을 사용하십시요.

There When You Need Us

Over the years, Crescenta Valley Water District (CVWD) has dedicated itself to producing high-quality drinking water which meets all state and federal standards. The District continually strives to adopt new methods for delivering the best quality drinking water to you. As new challenges continue to occur for drinking water safety, CVWD remains vigilant in meeting its goals of providing high-quality dependable water service 24-hours a day, seven days a week. CVWD promotes water conservation and community education while continuing to serve the needs of all its water users.

Please share with us your thoughts or concerns about the information in this report. The District relies on its customers to provide feedback in order to maintain excellent customer service.

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) websites provide a substantial amount of information on many issues relating to water resources, water conservation, and public health. Also, the Division of Drinking Water and Environmental Management has a website (www.cdph.ca.gov/certlic/drinkingwater/Pages/default.aspx) that provides complete and current information on water issues in California, including valuable information about our watershed.

How Long Can I Store Drinking Water?

The disinfectant in drinking water will eventually dissipate, even in a closed container. If that container housed bacteria prior to filling up with the tap water, the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.

What's Your Water Footprint?

You may have some understanding about your carbon footprint, but how much do you know about your water footprint? The water footprint of an individual, community, or business is defined as the total volume of freshwater that is used to produce the goods and services that are consumed by the individual or community or produced by the business. For example, 11 gallons of water are needed to irrigate and wash the fruit in one half-gallon container of orange juice. Thirty-seven gallons of water are used to grow, produce, package, and ship the beans in that morning cup of coffee. Two hundred and sixty-four gallons of water are required to produce one quart of milk, and 4,200 gallons of water are required to produce two pounds of beef.

According to the U.S. EPA, the average American uses over 180 gallons of water daily. In fact, in the developed world, one flush of a toilet uses as much water as the average person in the developing world allocates for an entire day's cooking, washing, cleaning, and drinking. The annual American per capita water footprint is about 8,000 cubic feet; twice the global per capita average. With water use increasing six-fold in the past century, our demands for freshwater are rapidly outstripping what the planet can replenish.

To check out your own water footprint, go to www.h2oconserve.org or visit www.waterfootprint.org to see how the water footprints of other nations compare.

Important Health Information

Nitrate in drinking water at levels above 45 ppm 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 ppm 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.

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 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 http://water.epa.gov/drink/hotline.

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 her at cjscott@cvwd.com.

Public Meetings

The 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 meetings and upcoming events can be found on the District website at www.cvwd.com.

Additionally, the community is encouraged to attend special meetings, such as budget workshops, which are advertised and posted on the District's website and at the District's Main Office at 2700 Foothill Blvd.

Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen, disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at that time. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use and avoid using hot water, to prevent sediment accumulation in your hot water tank.

Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

Lead in Home Plumbing

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.

Source Water Description

In 2012, approximately 67% of CVWD's source water came from local groundwater supply in the Verdugo Basin. The majority of CVWD's groundwater wells are located along the Verdugo Wash, south of Honolulu Avenue.

The remaining 33% 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, which carries water 242 miles from Lake Havasu to Lake Mathews, Riverside.

In emergency situations, an interconnection between CVWD and the City of Glendale can be used to supply water to District customers. Currently, another interconnection between CVWD and the Los Angeles Department of Water and Power is being put in place to further ensure the District's water system's reliability.

The District supplied approximately 1.5 billion gallons of water in 2012. That number is about 5% higher than the water deliveries from 2011. This is the second year in a row that water deliveries have increased. The District is not currently limiting outdoor watering to 3-days a week. Outdoor water use is likely the largest component of your bill. You can still keep it green with three days per week!

Water Conservation

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

Methyl Tertiary-Butyl Ether (MTBE)

MTBE is a fuel oxygenate which was used in gasoline to reduce carbon monoxide and ozone levels caused by auto emissions. The 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 taken several wells out of service due to the concentrations of MTBE in the groundwater over the MCL over the past six (6) years. In 2012, the District did not have any wells with MTBE levels over the maximum contamination level (MCL). The District monitors for MTBE weekly to ensure compliance with CDPH.

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 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 must provide the same protection for public 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.

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.

Treatment

CVWD is required by CDPH to test its groundwater for organic chemicals, minerals, metals, and bacteria; CVWD is also required to perform daily, weekly, and monthly tests for bacteria, nitrates, and total trihalomethanes in the distribution system. Lead and copper are tested in tap water from selected residences. MWD is responsible for water quality testing of their treated surface water.

Local groundwater is disinfected with chlorine before blending with MWD's imported surface water. The Verdugo Basin is high in nitrates, which could be due to the old septic systems and historical agricultural practices in the Crescenta Valley. CVWD treats some of the groundwater through a nitrate removal process at CVWD's Glenwood Facility. The remaining groundwater is blended with imported surface water to lower the nitrate levels below the Maximum Contaminant Level (MCL). The blend of imported surface water and groundwater delivered to your residence depends upon where you live in the community and the time of year.

Sampling Results

During the past year, the District has taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table to the right shows only those contaminants that were detected in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

				Crescenta Valley Water District		MWD			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppm)	2012	1	0.6	0.005	ND–0.075	0.12	ND–0.21	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	2012	10	0.004	0.1	ND–5.4	ND	NA	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2012	1	2	0.11	ND–0.13	ND	NA	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (ppb)	2012	50	(100)	0.4	ND–0.6	NA	NA	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Control of DBP precursors [TOC] (Units)	2012	TT	NA	NA	NA	2.3	1.8–2.6	No	Various natural and man-made sources
Fluoride[1,2] (ppm)	2012	2.0	1	0.48	0.20–0.91	0.8	0.6–1.1	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2009	15	(0)	2.9	0.69–6.9	ND[3]	ND–3[3]	No	Erosion of natural deposits
Gross Beta Particle Activity[4] (pCi/L)	2012	50	(0)	NA	NA	4	ND–6	No	Decay of natural and man-made deposits
Haloacetic Acids [HAA]–Stage 2[5] (ppb)	2012	60	NA	15	9–24	14	12–18	No	By-product of drinking water disinfection
Mercury [inorganic] (ppb)	2012	2	1.2	0.1	ND–0.6	ND	NA	No	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland
Methyl tert-Butyl Ether [MTBE][6] (ppb)	2012	13	13	0.14	ND–0.28	ND	NA	No	Leaking from underground gasoline storage tanks; discharge from petroleum and chemical factories
Nickel (ppb)	2012	100	12	0.8	ND–11	NA	NA	No	Erosion of natural deposits; discharge from metal factories
Nitrate [as nitrate][6] (ppm)	2012	45	45	29	23–34	ND	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radium 226 (pCi/L)	2009	5	0.05	0.11	ND–0.24	ND[3]	NA[3]	No	Erosion of natural deposits
Radium 228 (pCi/L)	2009	5	0.019	0.47	0.25–0.74	ND[3]	NA[3]	No	Erosion of natural deposits
TTHMs [Total Trihalomethanes]–Stage 2[7] (ppb)	2012	80	NA	51	34–76	45	42–48	No	By-product of drinking water disinfection
Tetrachloroethylene [PCE][6] (ppb)	2012	5	0.06	0.7	0.4–0.8	ND	NA	No	Discharge from factories, dry cleaners, and auto shops (metal degreaser)
Total Coliform Bacteria [Total Coliform Rule] (% positive samples)	2012	More than 5.0% of monthly samples are positive	(0)	0	NA	NA	NA	No	Naturally present in the environment
Trichloroethylene [TCE] (ppb)	2012	5	1.7	0.05	ND–0.72	ND	NA	No	Discharge from metal degreasing sites and other factories
Uranium (pCi/L)	2009	20	0.43	3.1	1.1–7.2	2[3]	1–2[3]	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	PHG (MCLG)	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2012	1.3	0.3	0.724	0/41	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2012	15	0.2	3.56	1/41	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES

				Crescenta Valley Water District		MWD			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2012	200	NS	4.7	ND–75	120	ND–210	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2012	500	NS	80	6–89	90	85–95	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2012	15	NS	1	1–1	1	1–1	No	Naturally occurring organic materials
Copper (ppm)	2012	1.0	NS	0.005	ND–0.073	ND	NA	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Iron[8] (ppb)	2012	300	NS	27	ND–330	ND	NA	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2012	50	NS	4	ND–49	NA	NA	No	Leaching from natural deposits
Odor–Threshold (Units)	2012	3	NS	ND	ND–1	2	2–2	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2012	1,600	NS	840	351–866	740	350–930	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2012	500	NS	117	28–130	140	130–160	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2012	1,000	NS	535	200–560	470	450–490	No	Runoff/leaching from natural deposits
Turbidity (Units)	2012	5	NS	0.4	0.2–1.4	0.05	0.07–0.07	No	Soil runoff

UNREGULATED AND OTHER SUBSTANCES

		Crescenta Valley Water District		MWD		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Alkalinity (ppm)	2012	147	130–170	95	61–120	Naturally occurring
Boron (ppm)	2012	NA	NA	130	130–130	NA
Calcium (ppm)	2012	84	36–94	46	45–48	Naturally occurring
Chlorate (ppb)	2012	NA	NA	66	ND–80	By-product of drinking water chlorination; industrial processes
Chromium VI [Hexavalent Chromium] (ppm)	2012	0.50	ND–0.78	ND	NA	Industrial waste discharge; could be naturally present
Magnesium (ppm)	2012	30	12–34	20	19–20	Naturally occurring
N-Nitrosodimethylamine (NDMA) (ppb)	2012	NA	NA	ND	ND–0.003	By-product of drinking water chloramination; industrial processes
pH[6] (Units)	2012	7.5	7.4–8.2	8.1	7.9–8.6	NA
Potassium (ppm)	2012	3.5	3.1–4.1	3.9	3.7–4.1	Naturally occurring
Sodium (ppm)	2012	36	16–40	78	74–82	Runoff/leaching from natural deposits; seawater influence
Total Hardness as CaCO3[9] (ppm)	2012	340	140–370	200	80–270	Leaching from natural deposits
Vanadium (ppb)	2012	3	ND–4	ND	NA	Erosion of natural deposits

[1] The numbers reported for fluoride are collected within the District's distribution system and reflect fluoride values after the water has been blended with water produced from MWD.
[2] Metropolitan was in compliance with all provisions of the State's Fluoridation System Requirements.
[3] Sampled in 2012.
[4] CDPH considers 50 pCi/L to be the level of concern for beta particles. Effective 6/11/2006, the gross beta particle activity MCL is 4 millirem/year annual dose equivalent to the total body or any internal organ. 50 pCi/L is used as a screening level.
[5] State DLR is 1 ppb for each of the following: dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid; and 2 ppb for monochloroacetic acid.
[6] Results reported are for samples collected within the District's distribution system.
[7] MWDs reporting level is 0.5 ppb for each of the Trihalomethanes (Bromodichloromethane, Bromoform, chloroform, and Dibromochloromethane), which is lower than the State DLR of 1 ppb.
[8] During quarterly water quality sampling, one of the District's wells had an initial high concentration of Iron (Fe) above the secondary MCL. The water from this well is blended with other groundwater and or imported water produced by MWD. Samples collected at blending stations and distribution points proved that water served to the community did not contain Fe above the secondary MCL. Subsequent monitoring showed this well to be producing water with Fe below the secondary MCL.
[9] To convert Hardness data from mg/L of CaCO3 to grains per gallon (gpg), divide the average by 17.1. For example, 340/17.1 = 19.9 gpg; 200/17.1 = 11.7 gpg.

Definitions

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

CDPH: California Department of Public Health

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.

MWD: Metropolitan Water District of Southern California

NA: Not applicable.

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

NS: No standard.

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 EPA.

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).