

For answers to common drinking water questions



CVWD's new brochure, *Tap Water You Can Trust*, answers common questions about tap water including fluoridation, water softening and more.

Order this free publication using the postcard inside this *Annual Review*.

For more detailed information:

To receive a summary of the district's source water assessments, or for additional water quality data or clarification, call the district's Water Quality Section at (760) 398-2651.

Complete copies of source water assessments may be viewed at the Coachella Valley Water District, 85-995 Avenue 52, Coachella, CA 92236.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien. También puede llamar al distrito de agua al número de teléfono (760) 398-2651.

2012 Domestic Water Quality Report

Coachella Valley Water District is committed to delivering high quality drinking water that meets stringent government standards. This annual report documents that the water served to all CVWD water users (obtained from wells drilled into the Coachella Valley's vast groundwater basin) meets state (California Department of Public Health) and federal (U.S. Environmental Protection Agency) drinking water quality standards.

CVWD is tasked with ensuring that drinking water standards are met. Highly trained employees monitor the water systems and collect drinking water samples that are tested at the district's state-certified laboratory. A few specialized tests are performed by other certified laboratories. In addition to the detected constituents listed in the table on pages 8-9, CVWD's Water Quality staff monitors for more than 100 other regulated and unregulated chemicals that are not detected during this monitoring.

CVWD is governed by a locally elected, five-member board of directors who normally meet in public session at 9 a.m., on the second and fourth Tuesdays of each month. Meeting locations rotate between the district's Coachella office at Avenue 52 & Highway 111 and the Palm Desert Administration Building at 75-515 Hovley Lane East. Call the district to confirm meeting time, date and location.

The following report is written and provided in accordance with California Department of Public Health requirements:

While all of CVWD's domestic water supply meets state and federal standards, drinking water supplied to some service areas does contain low levels of naturally occurring arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. All drinking water delivered by CVWD last year complies with the 10 microgram per liter (ug/L) maximum contaminant level (MCL).

Radon is a naturally occurring, radioactive gas — a byproduct of uranium — that originates underground but is found in the air. Radon moves from the ground into homes primarily through cracks and holes in their foundations. While most radon enters the home through soil, radon from tap water typically is less than two percent of the radon in indoor air.

The U.S. Environmental Protection Agency (USEPA) has determined

that breathing radon gas increases an individual's chances of developing lung cancer, and has proposed a MCL of 300 picoCuries per liter (pCi/L) for radon in drinking water. This proposed standard is far less than the 4,000 pCi/L in water that is equivalent to the radon level found in outdoor air. The radon level in district wells ranges from none detected to 460 pCi/L, significantly lower than that found in the air you breathe.

Nitrate in drinking water at levels above 45 milligrams per liter (mg/L) is a health risk for infants younger than six months old. 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 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 enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask for advice from your health care provider.

Nitrate levels in district wells ranges from no detection to 39 mg/L, which is below the maximum contaminant level.

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.

Coachella Valley 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 before using water for drinking or cooking. You can capture this flushed water in a container and use it for watering plants. 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>.

As noted, all drinking water served by CVWD comes from wells. The California Department of Public Health requires water agencies to state, however, "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 run off 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, USEPA and the state 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. 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 the National Safety Council Radon Hotline (1-800-SOS-RADON)."

Drinking Water Source Water Assessments:

The district has conducted source water assessments that provide information about the vulnerability of district wells to contamination. In 2002, CVWD completed a comprehensive source water assessment that evaluated all groundwater wells supplying the district's six public water systems. An assessment is performed on each new well added to CVWD's system. Groundwater from these district wells are considered vulnerable to activities associated with urban and agricultural uses.

Urban land uses include the following activities: known contaminant plumes, dry cleaners, underground storage tanks, septic systems, automobile gas stations (including historic), automobile repair shops, historic waste dumps/landfills, illegal/unauthorized dumping, sewer collection systems and utility stations' maintenance areas.

Agricultural land uses include the following activities: irrigation/agricultural wells, irrigated crops, pesticide/fertilizer/petroleum and transfer areas. The following activities have been associated with detected contaminants: known contaminant plumes, dry cleaners and irrigated crops.

Drinking water supplied by CVWD's wells to our communities complies with state and federal drinking water quality standards.

Chromium-6 in tap water

There's been some talk in the media recently about chromium-6 in tap water. CVWD's tap water does contain this form of chromium, which comes from naturally occurring minerals dissolved in local groundwater at levels that meet all state and federal drinking water standards.

While conflicting scientific studies exist for whether chromium-6 poses a health risk when consumed in low levels, CVWD encourages its water users to not overreact and consider the following facts:

- The current national standard for all forms of chromium in tap water and bottled water is 100 parts per billion (ppb). One ppb is equivalent to a single drop in 10,000 gallons.

- California's current drinking water standard is twice as strict at 50 ppb.

- CVWD's drinking water averages 9 ppb of chromium-6.

- Experts used by federal agencies to review health risks have identified recent rodent studies that indicate chromium-6 is unlikely to pose a health risk when consumed in the low levels found in tap water.

- California risk assessors have been encouraged to consider this new research before regulators adopt a new standard specific to chromium-6 sometime in 2014.

- CVWD is co-funding a nationally supported study to test various technologies to remove chromium-6 from water, in the event a standard is set below levels found in the valley's groundwater.

Definitions & Abbreviations

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

MCL or Maximum Contaminant Level — The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to public health goals or maximum contaminant level goals as economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

MCLG or Maximum Contaminant Level Goal — 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.

mg/L — Milligrams per liter (parts per million). One mg/L is equivalent to 1 second in 11.6 days.

MRDL or 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 or 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.

N/A — Not applicable. The government has not set a Public Health Goal, Maximum Contaminant Level Goal or Maximum Contaminant Level for this substance.

ND — None detected

NL or Notification Level — Health based advisory level established by the California Department of Public Health for chemicals in drinking water that lack maximum contaminant levels (MCLs) as stated by CDPH.

NTU — Nephelometric turbidity units (measurement of suspended material)

pCi/L — picoCuries per liter. For uranium, one pCi/L is equivalent to one second in 21.1 years.

PDWS or Primary Drinking Water Standard — MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirement.

PHG or Public Health Goal — Level of a contaminant in drinking water below which there is no known or expected risk to health. Public Health Goals are set by the California Environmental Protection Agency.

Secondary Drinking Water Standard — Based on aesthetics, these secondary maximum contaminant levels have monitoring and reporting requirements specified in regulations.

ug/L — Micrograms per liter (parts per billion). One ug/L is equivalent to 1 second in 31.7 years.

uS/cm — Microsiemens per centimeter

CVWD 2012 Domestic Water Quality Summary

(Covering the reporting period January - December 2011)

CVWD analyzed more than 18,000 water samples last year to ensure that your drinking water meets the state and federal standards. Every year, the district is required to analyze a select number of these samples for more than 100 regulated and unregulated substances.

This table lists those substances that were detected in the district's four service areas. Gray boxes indicate no substance was detected or existing data is no longer reportable. The data on the chart, which summarizes results of the most recent monitoring completed between 2003 and 2011, shows

that CVWD continues to deliver drinking water that meets state and federal water quality standards.

To read this table: First, determine in which service area you live (columns 4-7). Then move down the column, comparing the detection level of each chemical or other contaminant with the Public Health Goal, Maximum Contaminant Level Goal and Maximum Contaminant Level (columns 2-3).

For example, if you live in La Quinta and want to know the level of fluoride detected in your service area, you would look down the Cove Communities column and stop at the fluoride row. The average

fluoride level in that service area is 0.6 mg/L with the range of results varying between 0.2 mg/L and 1.0 mg/L.

Compare these values to the Maximum Contaminant Level in Column 3. Fluoride levels in this water comply with the Maximum Contaminant Level of 2.0 mg/L. The range can show a level above the Maximum Contaminant Level and still comply with the drinking water standard when compliance is based on average levels found in each water source.

1 Detected parameter, units	2 PHG or (MCLG)	3 Primary or (secondary) MCL	4 Cove Communities ^(1,9) Range (Average)	5 Indio Hills, Sky Valley & areas around Desert Hot Springs Range (Average)	6 Mecca, Bombay Beach, North Shore & Hot Mineral Spa Range (Average)	7 Desert Shores, Salton Sea Beach & Salton City Range (Average)	8 Major Source(s)
Aluminum, ug/L	600	1,000 (200)	ND-140 (ND)				Erosion of natural deposits
Arsenic, ug/L	0.004	10	ND-8.0 (ND)		ND-9.4 (5.4) ⁽⁷⁾		Erosion of natural deposits
Chloride, mg/L	N/A	(500, 600) ⁽⁸⁾	6.5-120 (17)	13-25 (18)	39-55 (45)	230-350 (290)	Leaching from natural deposits
Chlorine (as Cl ₂), mg/L ⁽³⁾	MRDLG 4	MRDL 4.0	ND-3.2 (0.3)	ND-1.0 (0.4)	ND-1.5 (0.4)	ND-1.5 (0.3)	Result of drinking water chlorination
Chromium, ug/L	(100)	50	ND-25 (ND)	16-19 (17)			Erosion of natural deposits
Chromium-6, ug/L ⁽²⁾	0.02	N/A	ND-21 (8.7)	9.1-19 (15)			Erosion of natural deposits
Copper, mg/L ⁽⁴⁾ [homes tested/ sites exceeding AL]	0.3	AL=1.3	0.12 [53/ 0]	0.14 [21/ 0]		0.11 [23/ 0]	Internal corrosion of household plumbing
Copper, mg/L	N/A	(1.0)	ND-0.2 (ND)				Leaching from natural deposits
Fluoride, mg/L	1	2.0	0.2-1.0 (0.6)	0.4-0.8 (0.6)	0.9-1.2 (1.0)	0.7-1.5 (1.1)	Erosion of natural deposits
Gross alpha particle activity, pCi/L	(0)	15	ND-14 (3.6)	3.5-14 (7.5)	ND-3.0 (ND)	ND-3.9 (ND)	Erosion of natural deposits
Hardness (as CaCO ₃), mg/L	N/A	N/A	17-300 (120)	120-200 (170)	15-19 (18)	200-290 (250)	Erosion of natural deposits
Iron, ug/L	N/A	(300)	ND-230 (ND)				Leaching from natural deposits
Foaming Agents (MBAS), mg/L	N/A	(0.5)	ND-0.09 (ND)				Municipal and industrial waste discharges
Nitrate (as NO ₃), mg/L	45	45	ND-39 (7.0)	2.4-6.3 (4.8)		4.3-9.3 (7.5)	Leaching of fertilizer, animal waste, natural deposits
pH, units	N/A	N/A	7.0-9.0 (7.8)	7.6-8.0 (7.8)	8.1-9.0 (8.7)	7.5-7.8 (7.6)	Physical characteristic
Sodium, mg/L	N/A	N/A	17-130 (29)	57-86 (69)	43-53 (48)	230-260 (240)	Erosion of natural deposits
Specific conductance, uS/cm	N/A	(1,600, 2,200) ⁽⁸⁾	240-1,100 (380)	570-820 (680)	260-290 (280)	1,600-2,100 (1,800)	Substances that form ions when in water
Sulfate, mg/L	N/A	(500, 600) ⁽⁸⁾	ND-280 (41)	150-220 (170)	0.8-3.0 (2.1)	210-280 (250)	Leaching from natural deposits
Total Coliform bacteria, positive samples/month	(0)	more than 5% ⁽⁵⁾ or more than 1 ⁽⁶⁾	ND-1% (ND)				Naturally present in the environment
Total dissolved solids, mg/L	N/A	(1,000, 1,500) ⁽⁸⁾	140-700 (230)	360-540 (440)	140-150 (150)	900-1,300 (1,000)	Leaching from natural deposits
Total trihalomethanes, ug/L ⁽³⁾	N/A	80	1.2-6.3 (4.5)	19	1.6	3.9	By-product of drinking water chlorination
Turbidity, NTU	N/A	(5)	ND-2.6 (ND)			ND-0.6 (0.2)	Leaching from natural deposits
Uranium, pCi/L	0.43	20	ND-12 (4.0)	5.4-11 (7.5)	2.0	2.4-4.2 (3.0)	Erosion of natural deposits
Vanadium, ug/L ⁽²⁾	N/A	NL=50	ND-39 (15)	9.8-26 (15)		24	Erosion of natural deposits

Footnotes: (1) Includes the communities of Rancho Mirage, Thousand Palms, Palm Desert, Indian Wells, La Quinta and portions of Bermuda Dunes, Cathedral City, Indio, Oasis, Riverside County, Thermal and Valerie Jean.

(2) Unregulated contaminants are those for which EPA and the California Department of Public Health have not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist both regulatory agencies in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

(3) The reported average represents the highest running annual average based on distribution system monitoring.

(4) Reported values are 90th percentile levels for samples collected from faucets in water user homes.

(5) Systems that collect 40 or more samples per month.

(6) Systems that collect less than 40 samples per month.

(7) Although an individual sample may exceed the MCL, compliance is based on a running annual average. The average reported is the highest running annual average for distributed water.

(8) Values listed are the upper and short-term consumer acceptance contaminant levels.

(9) In 2011, the Thermal, Valerie Jean and Oasis service area was consolidated into the Cove Communities service area.

“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 (a microbial pathogen found in surface water throughout the United States) and other microbial contaminants are available from the **Safe Drinking Water Hotline 1-800-426-4791 or www.epa.gov/safewater.** —California Department of Public Health