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2012 Water Quality Report

Hidden Valley Lake Community Services District takes great pride in providing high quality drinking water to the residents in our community.

To ensure that tap water is safe to drink, the Federal Environmental Protection Agency (USEPA) and the State of California Department of Health (DPH) set standards limiting the amounts of contaminants in water supplied by public water systems.

Hidden Valley Lake CSD tests for all types of contaminants to meet State and Federal regulations. The tables in this report give you the results of constituents that yield detectable levels. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

Drinking water is routinely sampled and monitored for Maximum Contaminant Levels (MCLs) which is the highest level allowed for a specific contaminant. Hidden Valley Lake CSD is pleased to report that our drinking water meets all treatment standards, and in fact, the levels are significantly lower than those allowed under EPA and DPH standards.

The following tables outline the results of the District's rigorous testing.

Board of Directors:

- Judy Mirbegan President
- Jim Freeman Vice President
- Carolyn Graham Director
- Jim Lieberman Director
- Linda Herndon Director

Regular board meetings are held on the third Tuesday of each month at 19400 Hartmann Road, Hidden Valley Lake, at 7:00 p.m.

"Hidden Valley Lake CSD is pleased to report that our drinking water meets all treatment standards..."

Where Does Our Water Come From?

Hidden Valley Lake CSD's drinking water is supplied from groundwater pumped from two primary wells from the Coyote Valley Basin. Hidden Valley Lake CSD stores 2.5 million gallons of water, providing fire protection and domestic drinking water to the residents of Hidden Valley Lake.

DEFINITIONS USED IN 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 (USEPA).

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 Standards (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 the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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.

Variations and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter ($\mu\text{g/L}$)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)

pCi/L: picocuries per liter (a measure of radiation)

What the Tables Mean

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.

In order to ensure that tap water is safe to drink, the USEPA 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 provide the same protection for public health.

Tables 1, 2, 3, and 4 list all the drinking water contaminants detected during most recent sampling for constituents. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.) 0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (complete if lead or copper detected in the last sample set)	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	20	5	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	20	0.37	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	4-18-12	6.7	-	ns	ns	Salt present in the water and is generally naturally occurring
Hardness (ppm)	4-18-12	250	-	ns	ns	Sum of polyvalent cations present in the water, generally magnesium and calcium, water, generally magnesium and calcium, and are usually naturally occurring and are usually naturally occurring

Your Water's Characteristics

Sodium: There is currently no drinking water standard for sodium. Hidden Valley Lake's sodium averages 6.7 ppm, a level unlikely to contribute to adverse health effects.

Hardness: Water in Hidden Valley Lake is considered to be very hard at an average level detected of 250 ppm. Water that is too soft (below 30 ppm) can be corrosive to plumbing pipes, and water that is too hard (above 300ppm) causes scales to form on plumbing fixtures and cooking utensils. Hard water is found in over 85% of the United States water supplies.

Water Hardness Scale		
Grains per Gallon	Parts per Million (ppm)	Classification
Less than 1.0	Less than 17.1	Soft
1.0 - 3.5	17.1 - 60	Slightly Hard
3.5 - 7.0	60-120	Moderately Hard
7.0 - 10.5	120 - 180	Hard
Over 10.5	Over 180	Very Hard

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Aluminum (ppm)	4-18-12	<0.05	-	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes.
Antimony (ppb)	4-18-12	<0.006	-	6	20	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
Arsenic (ppb)	4-18-12	<0.002	-	10	2	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.
Barium (ppm)	4-18-12	<0.1	-	1	0.04	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits.
Beryllium (ppb)	4-18-12	<0.001	-	4	2	Discharge from metal refineries, coal-burning factories, and electrical, aerospace, and defense industries.
Cadmium (ppb)	4-18-12	<0.001	-	5	1	Internal corrosion of galvanized pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories, and metal refineries; runoff from waste batteries and paints.
Chromium (ppb)	4-18-12	15	-	50	0.04	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.
Flouride (ppm)	4-18-12	.15	.10-.15	2.0	(11)	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Mercury [inorganic] (ppb)	4-18-12	<0.001	-	2	1	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland.
Nickel (ppb)	4-18-12	<10	-	100	12	Erosion of natural deposits; discharge from metal factories.
Nitrate (as nitrate, NO ₃) (ppm)	12-11-12	8.4	7-12	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.
Nitrite (as nitrogen) (ppm)	3-6-11 12-6-11	<.4	<.4	1	1	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Perchlorate (ppb)	4-18-12	<4	<4	6	6	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts.
Selenium (ppb)	4-18-12	<5	-	50	30	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive).
Thallium (ppb)	4-18-12	<1	-	2	0.1	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories.

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Color	4-18-12	10	3-10	15	NA	Naturally-occurring organic materials
Methyl-tert-butyl ether (MTBE) (ug/L)	4-18-12	ND	-	5	NA	Leaking underground storage tanks; discharge from petroleum and chemical factories
Odor--Threshold (units)	4-18-12	<1	-	3	NA	Naturally-occurring organic materials
Silver (ug/L)	4-18-12	<10	-	100	NA	Industrial discharges
Turbidity	4-18-12	.35	-	5	NA	Soil runoff
Zinc (mg/L)	4-18-12	<0.05	-	5	NA	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids (mg/L)	4-18-12	270	-	1,000	NA	Runoff/leaching from natural deposits
Specific Conductance (µS/cm)	12-11-12	550	-	1,600	NA	Substances that form ions when in water; seawater influence
Chloride (mg/L)	4-18-12	7.9	-	500	NA	Runoff/leaching from natural deposits; seawater influence
Iron	4-18-12	<100	-	300	NA	Leaching from natural deposits; industrial wastes
Manganese (ug/L)	4-18-12	<20	-	50	NA	Leaching from natural deposits
Sulfate (mg/L)	4-18-12	7.5	-	500	NA	Runoff/leaching from natural deposits; industrial wastes

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
Chromium VI (ppb) (Hexavalent chromium)	10-8-08	20.5	-	NA	NA

Additional General Information on Drinking Water

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 the 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).

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).

Lead-Specific Language for Community Water Systems: 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. Hidden Valley Lake CSD 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 <http://www.epa.gov/safewater/lead>.

<i>The difference between EPA tap water requirements and FDA bottled water rules.</i>	 Bottled Water	 Tap Water
Disinfection required	No	Yes
Confirmed E. Coli and Fecal Coliform banned	No	Yes
Must filter to remove pathogens, or have strictly protected sources	No ¹	Yes ²
Must test for Cryptosporidium, Giardia, viruses	No	Yes ³
Test frequently for most synthetic organic chemicals	One/year	One/year
Operator must be trained and certified ⁴	No	Yes
Must test for and meet standards for asbestos and phthalate	No	Yes Waivers available if a clean source
Must use certified labs for testing	No	Yes
Must report violations to State, Federal Officials	No	Yes
Consumer right to know about contamination	No	Yes
Testing frequently for bacteria	One/week	At least 120/month

1 FDA requires state and local approval of bottled water sources. Sources could be springs, wells or existing drinking water suppliers.

2. Hidden Valley Lake Community Services District uses wells for its drinking water supply to the Hidden Valley Lake residents.

3. Previous studies show groundwater from collector wells filter out Cryptosporidium, Giardia and viruses. Chlorine is added to achieve a 99.99% removal of viruses as required under the Groundwater Rule.

4. The Safe Water Drinking Act Amendments of 1996 requires states, subject to EPA guidelines, to train and certify operators of all public water systems.