

ANNUAL

WATER  
QUALITY  
REPORT

*Water testing performed in 2009*



PWSID#: 4010012

This report was prepared by:  
Heritage Ranch Community Services District  
4870 Heritage Road  
Heritage Ranch, CA 93446

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

## Maintaining High Standards

Once again Heritage Ranch Community Services District is proud to present our annual water quality report. This report covers all testing performed between January 1, 2009, and December 31, 2009. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal drinking water standards. We continually strive to adopt new and better methods for delivering the best quality drinking water to you. As new challenges to drinking water safety and drought conditions emerge, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

We encourage you to share your thoughts with us on the information contained in this report. Should you ever have any questions, we are always available to assist you. After all, well-informed customers are our best allies.



For more information about this report, or for any questions relating to your drinking water, please call Jason Molinari, Water Operations Supervisor, at (805) 227-6230.

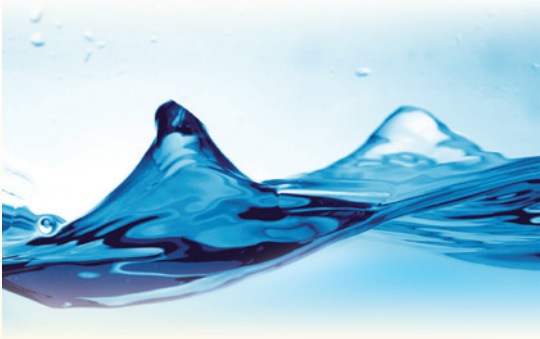
## Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. We meet the third Thursday of each month beginning at 4 p.m. at the District Office located at 4870 Heritage Road, Heritage Ranch, California.

## Where Does My Water Come From?

The water source for Heritage Ranch is surface water from the Nacimiento River, approximately 3,000 feet downstream from Lake Nacimiento. Well Number 1, located in the Nacimiento River, delivers water to our water treatment plant to remove any contaminants and adds chlorine as a disinfectant to protect you against microbial contaminants. The Jim McWilliams Water Treatment Plant was built in 1994 and is operated by our own State Certified Treatment Operators who are dedicated to provide you with a safe and clean supply of drinking water. Our treatment facilities provided roughly 184 million gallons of clean drinking water in 2009.

The District performed an update to the watershed sanitary survey in December 2005. None of the issues identified in the original 1995 survey have changed. Our water source is vulnerable to cattle, recreation, and wild land fire. If you would like to review the Source Water Assessment Plan, please feel free to contact our office during regular office hours.



## Water Treatment Process

The treatment process consists of a series of steps. First, raw water is drawn from our water source and sent to a 300,000 gallon raw water tank. A small amount of chlorine is added to the raw water to aid in the treatment process. The water then gravity flows to a mixer which mixes raw water with aluminum sulfate and polymer. The addition of these substances cause small particles to adhere to one another (called “floc”) making them heavy enough to filter out. The four filters consist of layers of varying sizes of rock, garnet, and anthracite. The four filters have a combined rate of two million gallons per day. After the filtration process, chlorine is added for disinfection and the filtered water is pumped to another 300,000 gallon

tank known as the clearwell. From the clearwell tank the treated water is sent to the 2 million gallon reservoir tank, from which it gravity flows to the customer.

## Emergency Water Supply Project

Heritage Ranch CSD has begun an ambitious project to insure continued access to our Nacimientto water entitlement. The Nacimientto Reservoir is our only water supply. The HRCSD has a water well in the Nacimientto River that is dependent on water flow in the river. This position caused us concern before this winter’s rains when in October 2009 the reservoir fell to 700 feet in elevation, 9% of capacity. This was the lowest reservoir level we had seen in 17 years. Whenever we experience multiple years of below normal rainfall, the Nacimientto Reservoir, our only water source, is at risk.

The HRCSD’s well produces 700 gallons per minute to keep up with demand. Peak summer day usage exceeds 1 million gallons. The well is running 20 to 24 hours per day during these times. Ground water within our boundaries does not have sufficient yield to satisfy customer demand. The community’s water use has increased by 50% over the last 10 years. The issue of no water for Heritage Ranch may not have been that important when the community was a part-time and summer residence, but we now have 1,750 water connections, 70% full-time customers, a year-long population of 3,500 people, a school, and a new commercial center.

In a severe drought, the water level in the Nacimientto Reservoir could fall to below 670 feet of elevation (dead pool). If this happens, Heritage Ranch is out of water because water cannot be gravity released from the reservoir below 670 feet. In history, the reservoir fell to 672 feet in 1989 for several months and in 1977 to 674 feet. The California Department of Public Health has directed the HRCSD to analyze emergency water options for a scenario in which water does not flow in the river. HRCSD engineers have developed an emergency water supply project that will build a pipeline from the Nacimientto Dam to our pump station. The pipeline will connect to the lower outlet works of the dam that releases water to the hydroelectric plant owned and operated by Monterey County Water Resources Agency (MCWRA). The project would pump water via a floating pump from the lake to the lower outlet works and then pump it to the HRCSD pump station 1. Even at elevation 670, there is still 10,300 acre feet of water in the reservoir. This volume of water would last Heritage Ranch for years.

HRCSD is negotiating with MCWRA and San Luis Obispo County for the ability to move forward with the emergency water supply project. The first step of this project includes design of the project, obtaining right of way from adjacent land owners, and completion of an environmental determination. The emergency water supply project will be funded by HRCSD water improvements capital reserves. The direct pipeline option will be complicated to build and may never be needed. However, if we do nothing, we are vulnerable to a multi-year drought that may cause a total loss of our water supply. The project provides a new access point to our existing Nacimientto water supply and offers insurance of continued water for Heritage Ranch during the next extended drought.

## 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. 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; and Radioactive Contaminants, which 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.

## 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.

## Important Health Information

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 [www.epa.gov/safewater/hotline/](http://www.epa.gov/safewater/hotline/).

## Information on the Internet

The U.S. EPA Office of Water ([www.epa.gov/watrhome](http://www.epa.gov/watrhome)) and the Centers for Disease Control and Prevention ([www.cdc.gov](http://www.cdc.gov)) Web sites 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 Web site ([www.cdph.ca.gov/certlic/drinkingwater/Pages/default.aspx](http://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.

## 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 we 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).

## Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The state allows 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							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppm)	2009	1	0.6	0.06	NA	No	Erosion of natural deposits; residue from some surface water treatment processes
Chlorine (ppm)	2009	[4.0 (as Cl <sub>2</sub> )]	[4 (as Cl <sub>2</sub> )]	0.93	0.21–2.23	No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2009	2.0	1	0.2	NA	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids <sup>1</sup> (ppb)	2009	60	NA	51	35–65	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] <sup>1</sup> (ppb)	2009	80	NA	59	46–61	No	By-product of drinking water disinfection
Thallium (ppb)	2009	2	0.1	1	NA	No	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Total Coliform Bacteria [Total Coliform Rule] (# positive samples)	2009	No more than 1 positive monthly sample	(0)	1	NA	No	Naturally present in the environment
Turbidity <sup>2</sup> (NTU)	2009	1	NA	0.370	0.030–0.370	No	Treatment Technique
Turbidity (Lowest monthly percent of samples meeting limit)	2009	1	NA	98.7%	NA	No	Treatment Technique

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

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2007	1.3	0.3	0.62	0/10	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2007	15	0.2	0	0/10	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2009	500	NS	7	NA	No	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	2009	300	NS	50	NA	No	Leaching from natural deposits; industrial wastes
Sulfate (ppm)	2009	500	NS	41	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2009	1,000	NS	192	NA	No	Runoff/leaching from natural deposits
Turbidity <sup>2</sup> (NTU)	2009	5	NS	1.2	NA	No	Soil runoff

## OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
<b>Hardness</b> (ppm)	2009	140	NA	Generally found in ground and surface water
<b>Sodium</b> (ppm)	2009	12	NA	Generally found in ground and surface water

<sup>1</sup>We were required by the U.S. EPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE) and is intended to identify locations in our distribution system that have elevated disinfection by-product concentrations. Disinfection by-products (e.g., HAAs and TTHMs) result from continuous disinfection of drinking water and form when disinfectants combine with organic matter that naturally occurs in the source water.

<sup>2</sup>Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Our drinking water treatment plant is a direct filtration system including flocculation, coagulation, filtration, and disinfection. This process is intended to reduce the level of contaminants in drinking water. 95% of the turbidity measurements must be < 0.3 NTU every month.

## Definitions

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

**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

**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.

**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).

**TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.