



# ANNUAL WATER QUALITY REPORT

Water testing performed in 2006

Presented By:

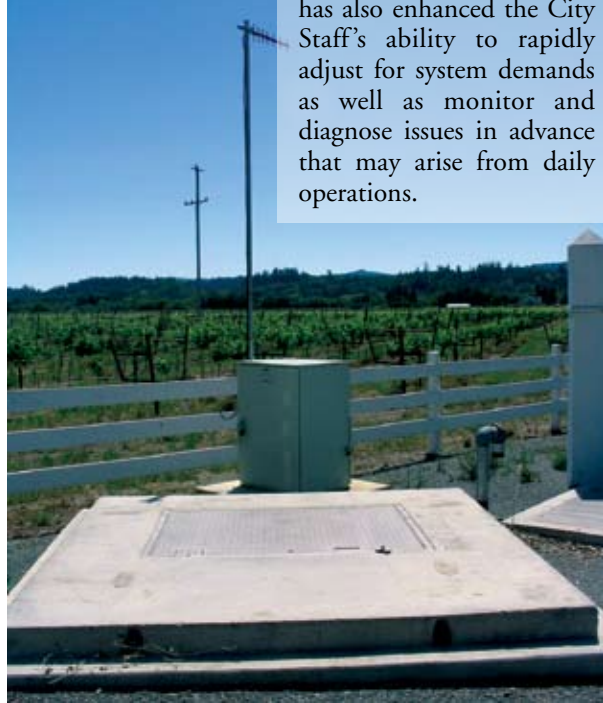


PWS ID#: 4910005



## SCADA System Upgrade Project

The City of Healdsburg Public Works Department has recently completed a SCADA (Supervisory Control and Data Acquisition) project. The SCADA system is a network of computers, controllers, automated equipment and instruments that provide instantaneous monitoring, control, and data logging of the water utility operations throughout the City. This includes drinking water reservoirs, pump stations, production wells, and numerous system monitoring points that are equipped with new programmable logic controllers or PLC's, which act as the "vital organs" of the operation. The controllers are linked to computers and network hardware located at the City of Healdsburg's Corporation Yard. The new equipment and the related infrastructure has increased system reliability, provided remote access at some sites that was not previously available, and



has also enhanced the City Staff's ability to rapidly adjust for system demands as well as monitor and diagnose issues in advance that may arise from daily operations.

City of Healdsburg  
401 Grove Street  
Healdsburg, CA 95448

*Este informe contiene informacin muy importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien.*

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HAZARDS	VULNERABILITIES	HAZARDS	VULNERABILITIES
Biological/turbidity	Animal operations	Chemical/biological	Illegal dumping/spills
Chemical	Repair shops	Chemical	Transportation corridors
Turbidity	Gravel mining	Chemical	Leaking tanks
Chemical	Government equipment/maintenance yard	Chemical/biological/turbidity	Agricultural activities/
		Biological	Sewer/septic systems

The City of Healdsburg prepared a Drinking Water Source Assessment in accordance with guidelines issued by the State Department of Health Services, the purpose of the source assessment is to determine if the water sources of the community are vulnerable to contamination. The source assessment is available for review at the Community Development Center, 435 Allan Court, Healdsburg, CA. The source assessment concludes that the water supply is vulnerable to the following:

## Drinking Water Source Assessment

**Copper** - The governing regulation to determine whether copper is present above or below the standard is based on the 90th percentile value for the most recent testing. The 90th percentile is the ninth highest value measured of ten test results. The 90th percentile value for the 2005 testing performed in Healdsburg was 1,300 ppb. The Maximum Contaminant Level, or Action Level, for copper is 1,300 ppb. Two of the 32 Healdsburg test sites exceeded the Action Level. A monitoring program is underway to optimize treatment to reduce the amount of copper at customers' taps.

**Lead** - The governing regulation to determine whether lead is present above or below the standard is based on the 90th percentile value for the most recent testing. The 90th percentile is the ninth highest value measured of ten test results. The 90th percentile value for the 2005 testing performed in Healdsburg was 5 ppb. The Maximum Contaminant Level, or Action Level, for lead is 15 ppb. None of the 32 Healdsburg test sites exceeded the Action Level.

**Fluoridation** - Water is dosed with fluoride for dental benefit. The water is dosed to a concentration of 0.8 milligrams per liter per Health Department regulation. Knowing that the water is fluoridated could potentially affect decisions for you and your family regarding fluoride supplements and treatments.

**Manganese** - The concentration in some production wells exceeds the secondary MCL. Manganese in excess of the MCL can chemically react with the chlorine added to disinfect the water and form a dark colored precipitate. The precipitate can stain plumbing fixtures, such as sinks and toilet bowls, and may cause staining of light colored laundry. By blending water from a number of sources, the average manganese concentration was 6.7 ppb in 2006. The MCL for manganese is 50 ppb.

FYI

The City of Healdsburg delivers treated water to its customers from two well fields located along the Russian River and one located along Dry Creek. 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 other matter, and in some cases radioactive material and can pick up substances resulting from the presence of animals or from human activity.

## Water Source



## 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.

We are pleased to provide you with this year's annual water quality report. In 2006, the City of Healdsburg tested hundreds of water samples from source wells and sample stations throughout the city. Independent, certified laboratories analyzed samples for more than 100 water quality constituents and characteristics. Those tests show that Healdsburg's drinking water meets all State and Federal health standards. We want to keep you informed about the excellent water and services we deliver to you. We are committed to providing our customers with a safe, palatable and dependable supply of drinking water.

## Continuing Our Commitment

For more information about this report contact Jim Flugum or Bill Robertson of the Public Works Department at (707) 431-3346.

Included in this report is a summary of results from water quality tests as well as an explanation of where our water comes from and information on how to interpret the data. This Consumer Confidence Report is required by law, and we are proud to share our results with you. Please read them carefully.

## Treated Water Quality Summary

Listed below are 23 substances or water quality characteristics detected in Healdsburg's drinking water. There are nearly 100 organic and inorganic substances that the city tested for but did not detect. The state allows the city to monitor for some contaminants less frequently than once a year because their concentrations do not change frequently.

### REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AVERAGE LEVEL DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppb)	2006	1000	<2000	88	38–140	No	Erosion of natural deposits
Combined radium (pCi/L)	2006	5	(0)	0.0683	0–0.3240	No	Erosion of natural deposits
Fluoride <sup>1</sup> (ppm)	2006	2	1	0.73	0.09–1.38	No	Water additive that promotes strong teeth particularly in children
Gross Alpha Particle Activity (pCi/L)	2006	15	(0)	0.37	0–1.05	No	Erosion of natural deposits
Haloacetic acids [HAA5] (ppb)	2006	60	NS	6.73	1.9–19.6	No	Disinfection by-products
Nitrate [as nitrate] (ppm)	2006	45	<45	2.01	ND–8.0	No	Runoff and leaching from fertilizer use, septic tanks, and erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2006	80	NS	21.8	5.52–46.9	No	By-product of drinking water chlorination
Turbidity–Gauntlett Well Field & Gauntlet Micro-Filtration Facility <sup>2</sup> (NTU)	2006	1.0 (TT = 95% of samples < 0.1 NTU)	NA	0.83 (level found) (97.10%)	NA	No	Soil runoff
Turbidity–Fitch Mountain Well Field (Groundwater Under Surface Water Influence) (NTU)	2006	5.0 (TT = 95% of samples < 0.3 NTU)	NA	0.75 (level found) (96.70%)	NA	No	Soil runoff
Turbidity–Dry Creek Well Field (Groundwater) (NTU)	2006	5.0 (TT = 95% of samples < 1.0 NTU)	NA	0.58 (level found) (100%)	NA	No	Soil runoff

Tap water samples were collected from 31 sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2005	1.3	<1.3	1.3	2	No	Internal corrosion of household plumbing systems
Lead (ppb)	2005	15	<15	0	0	No	Internal corrosion of household water plumbing systems

### SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AVERAGE LEVEL DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2006	500	<500	6.61	4.40–10.0	No	Runoff/leaching from natural deposits.
Iron (Raw Water) <sup>3</sup> (ppb)	2006	300	<300	40.8	ND–380	No	Leaching from natural deposits.
Iron (Treated Water) (ppb)	2006	300	<300	16.47	ND–240	No	Leaching from natural deposits
Manganese (Raw Water) <sup>3</sup> (ppb)	2006	50	<50	42	ND–310	No	Leaching from natural deposits
Manganese (Treated Water) (ppb)	2006	50	<50	6.7	ND–72	No	Leaching from natural deposits
Specific Conductance (µS/cm)	2006	1600	<1600	273	180–350	No	A measure of substances that form ions when in water
Sulfate (ppm)	2006	500	<500	14.55	11–20	No	Runoff/leaching from natural deposits.
Total Dissolved Solids (ppm)	2006	1,000	<1000	154	98–200	No	Runoff/leaching from natural deposits

### UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AVERAGE LEVEL DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Alkalinity (ppm)	2006	120	77–160	Natural geology
Bicarbonate (ppm)	2006	148	94–200	Natural geology
Calcium (ppm)	2006	22	16–27	Natural geology
Hardness (ppm)	2006	124	80–179	Natural geology
Magnesium (ppm)	2006	15.4	9.70–30.0	Natural geology
Sodium (ppm)	2006	7.85	6.50–9.20	Natural geology
pH units (Units)	2006	6.91	6.70–7.10	A measure of the acidity of water

#### Footnotes:

- Fluoride is regulated as a water treatment.
- Turbidity is a measure of the cloudiness of the water. A higher turbidity value indicates more particles in the water. The particles in themselves are not usually a health concern, but they may shield microorganisms from the effects of disinfection (chlorination). Turbidity is monitored because it is a good indicator of water quality. The results are for water sourced from the Gauntlett Well Field and filtered at the Gauntlett Micro-Filtration Plant.
- Raw water before treatment.

## Table Definitions

**Action Level (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 level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

**MRDLG (Maximum Residual Disinfectant Level Goal):** The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. EPA.

**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 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.

## Substances That Might Be in Drinking 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 Health Services (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, which 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, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

**Inorganic Contaminants**, such as salts and metals, which 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**, which 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**, 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.

## Customer Views Welcome

If you are interested in learning more about your water utility or water quality, you can direct your questions, concerns or comments to the Public Works Department at (707) 431-3346.

Citizens may also address comments directly to the Healdsburg City Council, which meets the first and third Mondays of each month at 7:00 p.m. 401 Grove Street, Healdsburg, CA. City Council meetings are open to the public. [www.ci.healdsburg.ca.us](http://www.ci.healdsburg.ca.us)