



City of Healdsburg 2008 Consumer Confidence Report

Healdsburg Water Meets or Exceeds All State & Federal Standards – PWS ID # 4910005

We are pleased to provide you with this year's Annual Consumer Confidence Report. In 2008, the City of Healdsburg tested hundreds of water samples from our source water wells and sample stations situated throughout the City. Independent, certified laboratories analyzed samples for more than 100 water quality constituents and characteristics. We are pleased to inform you that your water met or surpassed all state & federal water quality standards during this reporting period.

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.

Where Does My Tap Water Come From?

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. This runoff water can pick up substances resulting from the presence of animals or from human activity. 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 City of Healdsburg prepared a "Drinking Water Source Assessment" in December 2001. Prepared in accordance with guidelines issued by the State Department of Public Health Services, the purpose of the Source Assessment is to determine if the water sources of the community are vulnerable to contamination. Ground-water supplies are considered most vulnerable to automobile gas stations, chemical/petroleum processing/storage yards, parks, freeway/state highway transportation corridors, herbicide use in road rights-of-way, water supply wells, drycleaners, metal plating/ finishing/ fabricating, automobile repair shops, utility station maintenance areas, and wastewater treatment plants. The Source Assessment is available for review at the Community Development Center, 435 Allan Court.

What Are Drinking Water Standards?

There are over 100 standards set by the California Department of Public Health Services (CDPH) for compounds that could be found in drinking water. The City has sampled for most of the compounds and if they were not detected they are still included in the Water Quality Table.

There are two types of limits, known as standards. Primary standards set limits for substances that may be harmful to humans if consumed in large quantities over certain periods of time. Secondary standards are limits for substances that could affect the water's taste, odor, and appearance. Regulations set a Maximum Contaminant Level (MCL) for each of the primary and secondary standards. The MCL is the highest level of a substance that is allowed in drinking water.

What Does the EPA Say About Drinking Water Quality?

To ensure that tap water is safe to drink the EPA & CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The City of Healdsburg conducts regular testing as prescribed by the state and federal agencies to ensure that none of the contaminants listed below are detected at levels considered to be unsafe by the health agencies. 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 storm-water runoff, industrial or domestic wastewater discharges, oil and gas production, oil leaks from vehicle engines, 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, which are by-products of industrial processes and petroleum production, and which can also come from gas stations, urban storm-water 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.

What Affects the Contents of water?

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. As water travels over the surface of the land or through the ground, it can pick up substances resulting from the presence of animals or from human activity. 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 U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791. You can get more information on tap water by logging on to the following helpful website: www.epa.gov/OGWDW (Federal EPA's website)

Should I Take Additional Precautions?

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 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.

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 401 Grove Street, Healdsburg or by calling (707) 431-3346. Citizens may also present comments directly to the Healdsburg City Council, which meets on the first and third Monday of each month at 6:00 p.m., at 401 Grove Street. City Council meetings are open to the public. www.ci.healdsburg.ca.us



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How Do I Read the Water Quality Table?

Detected substances that exceed a Public Health Goal (PHG) or Maximum Contaminant Level Goal (MCLG) must be reported. PHGs are set by the California EPA. PHGs provide more information on the quality of drinking water to customers, and are similar to their federal counterparts MCLGs. Both PHGs and MCLGs are levels that are of an advisory nature only and non-enforceable. Both PHGs and MCLGs are concentrations of a substance for which there are no known or expected health risks. The regulations require a listing of the PHG and/or MCLG for each detected chemical contaminant, a definition of terms, information on violations and a statement about health concerns of chemicals detected above regulatory limits. Some additional substances of interest are listed even though no PHG or MCLG have been established.

The table in this report lists all of the contaminants for which state or federal standards have been set that the City detected during the current reporting period. The presence of these contaminants does not necessarily mean that the water poses a health risk. To review the quality of your drinking water, compare the highest concentration detected and the corresponding MCL. As you can see, none of the levels reported exceeded those considered harmful by state and federal agencies.

Definitions:

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 2008 testing performed in Healdsburg was <1300 ppb. The MCL, or action level for copper is 1300 ppb. One of the thirty-three test sites exceeded the action level.

Fluoridation – Healdsburg’s water is dosed with fluoride for dental benefits. The water is dosed to a concentration of 0.8 milligrams per liter in accordance with CDPH regulations. Knowing that the water is fluoridated could potentially affect decisions for you and your family regarding fluoride supplements and other dental treatments.

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 2008 testing performed in Healdsburg was < 5 ppb. The maximum contaminant level, or action level for lead is <15 ppb. None of the thirty-three test sites exceeded the action level.

Manganese - The concentration in some production wells exceeds the secondary MCL. Manganese in excess of the secondary MCL can chemically react with the chlorine added to disinfect the water and form a dark colored precipitate. This 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 6.9 ppb in 2008. The MCL for Manganese is 50 ppb.

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.

Maximum Contaminant Level Goal (MCLG)- The level of 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.

Maximum Residual Level Disinfectant Level (MRDL)- The level of disinfectant added for water treatment that may not be exceeded at the customers tap.

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

Primary Drinking Water Standard (PDWS)- MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

Public Health Goal (PHG)- The level of contaminant in drinking water below which there is no known or expected risk to health. PHG’s are set by the U.S. Environmental Protection Agency.

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

Secondary Maximum Contaminant Level (SMCL) – The level set to protect the odor, taste, and appearance of drinking water.

Treatment Technique (TT)- A required process intended to reduce the level of contaminant in water.

Abbreviations

ppm- Parts per million
ppb- parts per billion
N/A- Not applicable
NS- No Standard

NTU- Nephelometric turbidity units- clarity of water
pCi/l- A measure of radiation
ND- Constituent not found in reporting limit
µs/cm- A unit expressing the amount of electrical conductivity of a solution

TREATED WATER QUALITY SUMMARY - Listed below are 27 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 requires us to monitor for certain substances less than once a year because concentrations do not change frequently. In these cases the most recent sample data are included, along with the year in which the sample was taken.

SUBSTANCE	YEAR SAMPLED	HIGHEST LEVEL ALLOWED (EPA'S MCL, MCLG & MRDL)	AVERAGE LEVEL DETECTED	RANGE OF LEVELS DETECTED	PUBLIC HEALTH GOALS (MCLG) or (MRDLG)	HIGHEST LEVEL DETECTED	TYPICAL SOURCE
REGULATED AT THE CUSTOMERS TAP							
COPPER	2008	1300 PPB	590.8 PPB	180-2300 PPB	< 1300 PPB	2300 PPB	Internal corrosion of household plumbing systems.
LEAD	2008	15 PPB	< 5.0 PPB	< 5.0 PPB	< 15 PPB	< 5.0 PPB	Internal corrosion of household plumbing systems.
REGULATED IN THE DISTRIBUTION SYSTEM							
TOTAL TRIHALOMETHANES	2008	80 PPB	19.6 PPB	9.47 - 41.68 PPB	NS	41.68 PPB	Disinfection by-products
HALOACETIC ACIDS	2008	60 PPB	8.59 PPB	< 1.0 - 28.4 PPB	NS	28.40 PPB	Disinfection by-products
CHLORINE	2008	4 PPM	0.67 PPM	0.14 - 1.18 PPM	4 PPM	1.18 PPM	Disinfectant added for drinking water treatment
REGULATED DURING TREATMENT							
ARSENIC ¹	2008	10 PPB	ND	ND	.004 PPB	ND	Erosion of natural deposits, runoff from orchards, and glass and electronics production wastes
FLUORIDE ²	2008	2 PPM	0.93 PPM	0.86 - 0.94 PPM	1 PPM	0.94 PPM	Water additive that promotes strong teeth particularly in children; Leaching from natural deposits.
NITRATE (as NO ₃)	2008	45 PPM	1.0 PPM	ND - 2.9 PPM	< 45 PPM	2.9 PPM	Runoff and leaching from fertilizer use, septic tanks, and erosion of natural deposits
GROSS ALPHA EMITTERS	2007	15 pCi/L	0.26 pCi/L	0.0 - 0.75 pCi/L	0	0.75 pCi/L	Erosion of natural deposits.
RADIUM 228	2006	5 pCi/L	ND	ND	0	ND	Erosion of natural deposits.
TURBIDITY - Gauntlett Well Field & Gauntlett Microfiltration Facility ³	2008	1.0 (TT=95% of samples <1.0 NTU)	<0.04 NTU	NA	NA	NA	Soil Runoff
TURBIDITY - Dry Creek Well Field (Groundwater) ³	2008	5.0 (TT=95% of samples <1.0 NTU)	<0.21 NTU	NA	NA	NA	Soil Runoff
TURBIDITY - Fitch Mountain Well Field (Groundwater Under Surface Influence) ³	2008	5.0 (TT=95% of samples <0.3 NTU)	<0.22 NTU	NA	NA	NA	Soil Runoff
SECONDARY SUBSTANCES							
ALUMINUM	2008	1000 PPB	12.46 PPB	ND - 110 PPB	600 PPB	110 PPB	Erosion of natural deposits.
CHLORIDE	2008	500 PPM	6.1 PPM	3.9 - 9.1 PPM	< 500 PPM	9.1 PPM	Runoff / Leaching from natural deposits.
MANGANESE (Raw water) ⁴	2008	50 PPB	9 PPB	ND - 74 PPB	< 50 PPB	74 PPB	Leaching from natural deposits.
MANGANESE (Treated water) ⁴	2008	50 PPB	4 PPB	ND - 25 PPB	< 50 PPB	25 PPB	Leaching from natural deposits.
IRON* (Raw water) ⁴	2008	300 PPB	41 PPB	ND - 260 PPB	< 300 PPB	260 PPB	Leaching from natural deposits.
IRON* (Treated water) ⁴	2008	300 PPB	16 PPB	ND - 140 PPB	< 300 PPB	140 PPB	Leaching from natural deposits.
SPECIFIC CONDUCTANCE	2008	1600 umhos/cm	259.2 umhos/cm	160-350 umhos/cm	<1600 umhos.cm	350 umhos/cm	A measure of substances that form ions when in water.
SULFATE	2008	500 PPM	13.1 PPM	7.8 - 30 PPM	< 500 PPM	30 PPM	Runoff / Leaching from natural deposits.
TOTAL DISSOLVED SOLIDS	2008	1000 PPM	134.5 PPM	68 - 200 PPM	< 1000 PPM	200 PPM	Runoff / Leaching from natural deposits.
ZINC	2008	5000 PPB	ND	ND	NS	ND	Runoff/Leaching from natural deposits, industrial wastes.
UNREGULATED SUBSTANCES							
ALKALINITY	2008	NS	114.5 PPM	60 - 180 PPM	Not regulated	180 PPM	Natural geology
BICARBONATE	2008	NS	136.2 PPM	81 - 220 PPM	Not regulated	220 PPM	Natural geology
CALCIUM	2008	NS	22.9 PPM	15-29 PPM	Not regulated	29 PPM	Natural geology
HARDNESS	2008	NS	128.1 PPM	73-196 PPM	Not regulated	196 PPM	Natural geology
MAGNESIUM	2008	NS	17.1 PPM	8.8 - 33 PPM	Not regulated	33 PPM	Natural geology
SODIUM	2008	NS	9.3 PPM	6.5 - 16 PPM	Not regulated	16 PPM	Natural geology
BARIUM	2008	1000 PPB	91.3 PPB	34 - 150 PPB	< 2 PPM	150 PPB	Erosion of natural deposits.
pH UNITS	2008	6.5 to 8.5 pH units	7.10 pH units	6.80 - 7.40 pH units	6.5 to 8.5 pH units	7.40 pH Units	A measure of the acidity of water

Footnotes

1 Effective 01/23/2006, the Federal Arsenic MCL is 10 ppb. A new state MCL has not yet been adopted and remains as 50 ppb.

2 Fluoride is regulated as a water treatment.

3 Turbidity is a measure of the cloudiness of the water. A higher turbidity value indicates more particles in the water. The particles 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 Gauntlett Well Field and filtered at the Gauntlett Micro-Filtration Plant.

4 Raw water before treatment.