

# HEALDSBURG'S DRINKING WATER

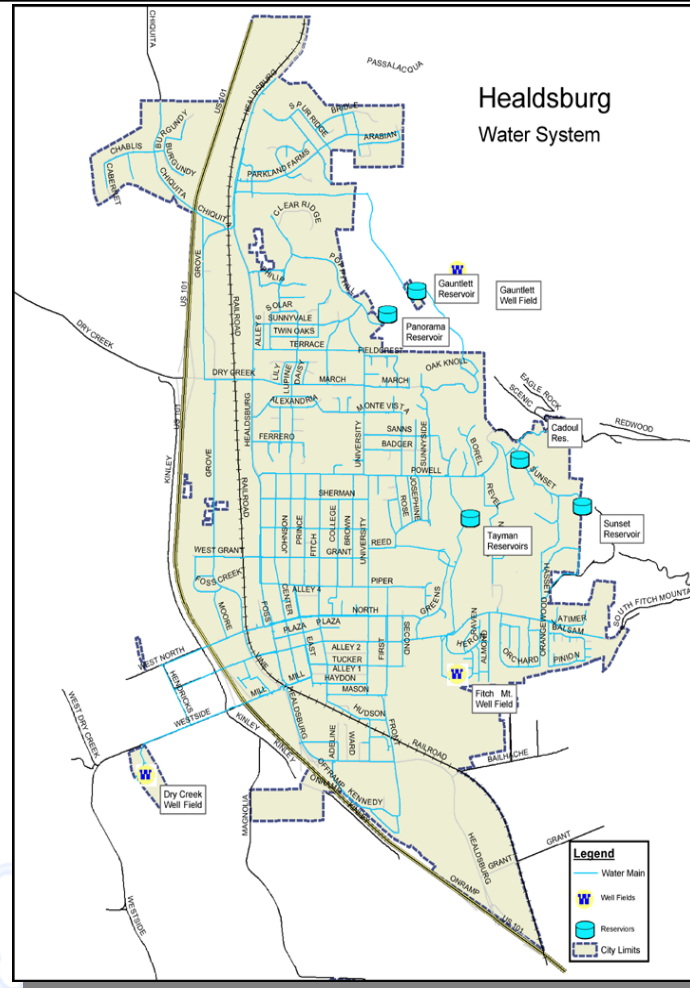
# 2005 CONSUMER CONFIDENCE REPORT FOR THE CITY OF HEALDSBURG

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 & 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.

Contaminants that may typically be present in untreated source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from agricultural livestock operations, wildlife, septic systems and sewage treatment plants.
- 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, which 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 and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

The presence of contaminants does not necessarily indicate that water poses a health risk. In order to ensure that tap water is safe to drink, the USEPA and the California Department of Health Services (DHS) prescribe regulations that limit the amount of certain contaminants present in water provided by public water systems. Food and Drug Administration (FDA) regulations also establish limits for contaminants in bottled water.



## Drinking Water Source Assessment

The City of Healdsburg prepared a "Drinking Water Source Assessment" in December 2001. Prepared 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. The Source Assessment concludes that the water supply is vulnerable to the following:

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

## En Español

Este reporte contiene información importante acerca de el sistema de agua de la Ciudad de Healdsburg y la seguridad de su agua potable. Usted podría solicitar una copia de este 431-3346. Horas de Oficina son de las 8:30 a.m. a las 5:00 p.m., lunes a viernes, o deje un mensaje con su domicilio y una copia del reporte será mandada por correo.



We are pleased to provide you with this year's Annual Water Confidence Report. In 2005, the City 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. 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.

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

## New Water Treatment Facility Completed

In September of 2005, the City completed its new Gauntlett/Fitch Water Treatment Facility, located at the end of Sunnyvale Drive. The treatment facility began operating in October 2005, and has the capacity to treat 2.6 million gallons per day. That capacity will eventually be expanded to 4.5 million gallons per day (see below), which will be adequate to meet all of the City's water supply needs for the foreseeable future.

The project uses relatively new microfiltration technology to screen out particles even smaller than bacteria, and is the largest and most advanced treatment facility of this type in Sonoma County. One of the primary reasons for building the treatment facility was to allow the City to use its Gauntlett and Fitch well fields on the Russian River year-round. Before the treatment facility was completed, the Gauntlett and Fitch well fields could only be used in the dry season because of inadequate filtration through the streambed gravel during winter floods. At present, the Gauntlett Well Field is connected to the treatment facility, and the State Department of Health Services has now given the City permission to operate Gauntlett Well Field year-round with the new treatment equipment. The Fitch Well Field (located near Badger Park) will be connected during the second phase of the project in 2009 or 2010, when a new 1.5 mile water line extension will connect the Fitch Well Field to the new treatment facility. Additional filtration equipment will be installed in the treatment building at that time to increase the capacity to 4.5 million gallons per day.

The completed treatment facility and the scheduled second phase of the project will leave the City poised to meet all of its water demands with a very high quality supply for the foreseeable future.

## Special Information Available

Some people may be more vulnerable to constituents in drinking water than the general population. Immuno-compromised persons such as individuals 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 USEPA Safe Drinking Water Hotline (1-800-426-4791). More research for this information can be found on the EPA website at [www.epa.gov/safewater/hfacts.html](http://www.epa.gov/safewater/hfacts.html). California action levels are available on the Department of Health Services website at [www.dhs.ca.gov/ps/ddwem/default.htm](http://www.dhs.ca.gov/ps/ddwem/default.htm).



# 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.

| SUBSTANCE   | HIGHEST LEVEL ALLOWED (EPA'S MCL, MCLG & MRDL)   | AVERAGE LEVEL DETECTED | RANGE OF LEVELS DETECTED         | PUBLIC HEALTH GOALS (MCLG) or (MRDLG)                | SOURCES OF CONTAMINANT   | HIGHEST LEVEL DETECTED |
|---|--|------------------------|----------------------------------|--|--|------------------------|
| <b>REGULATED IN THE DISTRIBUTION SYSTEM</b>   |  |                        |                                  |  |  |                        |
| TOTAL TRIHALOMETHANES   | 80 PPB   | 18.6 PPB               | 7.6 - 34.35 PPB                  | NS   | Disinfection by-products   | 34.35 PPB              |
| HALOACETIC ACIDS  | 60 PPB   | 6.73 PPB               | ND - 19.6 PPB                    | NS   | Disinfection by-products   | 19.6 PPB               |
| CHLORINE  | 4 PPM  | 0.65 PPM               | 0.26 - 1.67 PPM                  | 4 PPM  | Disinfectant added for drinking water treatment  | 1.67 PPM               |
| <b>REGULATED DURING TREATMENT</b>   |  |                        |                                  |  |  |                        |
| FLUORIDE  | 2 PPM  | 0.74 PPM               | 0.11 - 1.03 PPM                  | 1 PPM  | Leaching from natural deposits. Fluoride is used in Healdsburg as an additive to promote strong teeth, particularly in children. The City doses fluoride at 0.8ppm, which is the optimal fluoride identified by the State Department of Health Services. | 1.03 PPM               |
| NITRATE (as NO3)  | 45 PPM   | 0.98 PPM               | ND - 3.30 PPM                    | < 45 PPM   | Runoff and leaching from fertilizer use, septic tanks, and erosion of natural deposits   | 3.30 PPM               |
| GROSS ALPHA EMITTERS  | 15 pCi/L   | 0.47 pCi/L             | 0.08 - 0.75 pCi/L                | n/a  | Erosion of natural deposits. (Results are from testing done in 2002)   | 0.75 pCi/L             |
| <b>SECONDARY STANDARDS and ADDITIONAL CONSTITUENTS ANALYZED TO GIVE AN IDEA OF QUALITY.</b> |  |                        |                                  |  |  |                        |
| CHLORIDE  | 500 PPM  | 6.35 PPM               | 4.90 - 7.70 PPM                  | < 500 PPM  | Runoff / Leaching from natural deposits.   | 7.70 PPM               |
| MANGANESE *   | 50 PPB   | 42 PPB                 | ND -310 PPB                      | < 50 PPB   | Leaching from natural deposits   | 310 PPB                |
| SULFATE   | 500 PPM  | 11.9 PPM               | 9.8 - 14.0 PPM                   | < 500 PPM  | Runoff / Leaching from natural deposits.   | 14 PPM                 |
| TOTAL DISSOLVED SOLIDS  | 1000 PPM   | 151 PPM                | 100 - 190 PPM                    | < 1000 PPM   | Runoff / Leaching from natural deposits.   | 190 PPM                |
| ALKALINITY  | NS   | 109 PPM                | 68 - 160 PPM                     | Not regulated  | Natural geology  | 160 PPM                |
| BICARBONATE   | NS   | 134 PPM                | 83 - 200 PPM                     | Not regulated  | Natural geology  | 200 PPM                |
| CALCIUM   | NS   | 21 PPM                 | 14 - 27 PPM                      | Not regulated  | Natural geology  | 27 PPM                 |
| HARDNESS  | NS   | 117 PPM                | 77 -169 PPM                      | Not regulated  | Natural geology  | 169 PPM                |
| MAGNESIUM   | NS   | 15.8. PPM              | 9.9 - 27.0 PPM                   | Not regulated  | Natural geology  | 27.0 PPM               |
| POTASSIUM   | NS   | 0.42 PPM               | ND -1.10 PPM                     | Not regulated  | Natural geology  | 1.10 PPM               |
| SODIUM  | NS   | 7.97 PPM               | 6.60 - 10.00 PPM                 | Not regulated  | Natural geology  | 10.00 PPM              |
| BARIIUM   | 1000 PPB   | 78 PPB                 | 38 - 130 PPB                     | <2000 PPB  | Erosion of natural deposits.   | 130 PPB                |
| pH units  | 6.5 to 8.5 pH units  | 7.22 pH units          | 6.69 - 7.77 pH units             | 6.5 to 8.5 pH units                                  | A measure of the acidity of water  | 7.77 pH Units          |
| SPECIFIC CONDUCTANCE  | 1600 umhos/cm  | 250 umhos/cm           | 180 -340 umhos/cm                | < 1600 umhos/cm                                      | A measure of substances that form ions when in water.  | 340 umhos/cm           |
| <b>TURBIDITY- (The major source of Turbidity in drinking water is soil runoff.</b>          |  |                        |                                  |  |  |                        |
| Water Production Site   | Performance Standard (Treatment Technique)   |                        | Highest Single Measurement (NTU) | Lowest Monthly % of Samples Meeting Turbidity Limits |  |                        |
| Dry Creek Well Field  | ≤1.0 NTU in 95% of the measurements taken each month, and shall not exceed 5.0 NTU at any time |                        | 0.58                             | 100%   |  |                        |
| Fitch Mountain Well Field & Gauntlett Well Field (Under Surface Water Influence)            | ≤0.5 NTU in 95% of the measurements taken each month, and shall not exceed 5.0 NTU at any time |                        | 2.69                             | 99.80%   |  |                        |
| Gauntlett Micro-Filtration Plant  | ≤0.1 NTU in 95% of the measurements taken each month.  |                        | 0.20                             | 99.40%   |  |                        |
| <b>LEAD &amp; COPPER TEST RESULTS</b>   |  |                        |                                  |  |  |                        |
|   | Number of Samples  | Action Level (AL)      | 90th Percentile Results          | Number of samples exceeding AL                       | Major sources in drinking water  |                        |
| Lead  | 32   | > 15 PPB               | > 5 PPB                          | 0  | Internal corrosion of household plumbing systems   |                        |
| Copper  | 32   | > 1300 PPB             | 1300 PPB                         | 2  | Internal corrosion of household plumbing systems   |                        |

## Abbreviations

~ - Average Rule  
 > - Greater than  
 < - Less than  
 ND - Not detected at the lowest value detectable by the test procedure  
 NS - No standard set at this time  
 MRDL - Maximum residual disinfectant level

MRDLG - Maximum residual disinfectant level  
 NTU - Nephelometric Turbidity Unit  
 pCi/L - Picocuries per liter is a measure of radiation  
 PPB - Parts per billion, or micrograms per liter  
 PPM - Parts per million, or milligrams per liter  
 umho/cm - micromhos per centimeter

# 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 2007 testing performed in Healdsburg was >1300 ppb. The maximum contaminant level, or action level for copper is 1300 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 the customers tap.

**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 18 ppb in 2005. 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. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

## 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, 7:00 pm at 401 Grove Street. City Council meetings are open to the public.

*City of Healdsburg, 401 Grove Street, Healdsburg, California 95448 [www.ci.healdsburg.ca.us](http://www.ci.healdsburg.ca.us)*

**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.

**Maximum Residual Disinfectant Level (MRDL)** - The level of a disinfectant (chlorine) added for water treatment that may not be exceeded at the customer's 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. MRDL's are set by the U.S. Environmental Protection Agency.

**Nephelometric Turbidity Unit - (NTU)** A turbidity unit is a measurement of the clarity of the water.

**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 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.

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

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

**Turbidity** - A measure of the clarity of 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.