| DISINFECTANT ADDED TO WATER | | | | | | |
|---|---|---|---|---|---|---|
| | Microbiological Contaminants Sample Points | 2 0 0 7 | Average (ppm) | Range (ppm) | MRDL | MRDLG |
| Chlorine | | | 0.58 | 0.44 - 0.73 | 4.0 | 4.0 |

**General Information**

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 human activity.

Contaminates that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic tanks, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, Such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides**, that may come from variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- **Radioactive contaminants**, that can be naturally-occurring or be that result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA and the California Department of Public Health 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 contaminates. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminates and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-comprised 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 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 lesson the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline @ 1-800-426-4791

**NITRATES:**

Nitrate in drinking water at levels above 45 ppm is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness: symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with specific enzyme deficiencies. If you are caring for an infant you should ask advice from your health care provider.

**SOURCE WATER ASSESSMENT:**

A source water assessment has been completed for the wells serving the City of Wheatland. The sources are considered most vulnerable to the following activities not associated with any detected contaminants:

Well 3: Above ground storage tanks, construction /demolition staging areas, equipment storage areas, water supply wells, chemical/petroleum pipelines, gas stations.
Well 4: Gas stations, sewer collection systems.
Well 5: Chemical/petroleum pipelines, sewer collection systems.
Well 6: Auto repair & machine shops, bus terminals, grazing, septic systems, existing and historic gas stations.
Well 7: Grazing, home manufacturing, sewer collection systems.
Well 8: Sewer collection systems.

A copy of the complete assessment may be viewed at:

PHS Valley District Office
415 Knollcrest Drive
Suite 110, Redding, CA 96002
Richard Hinrichs
at 530-224-4867

or at

City of Wheatland
P.O. Box 395
Wheatland, CA 95692
Don Scott
at 530-633-2785

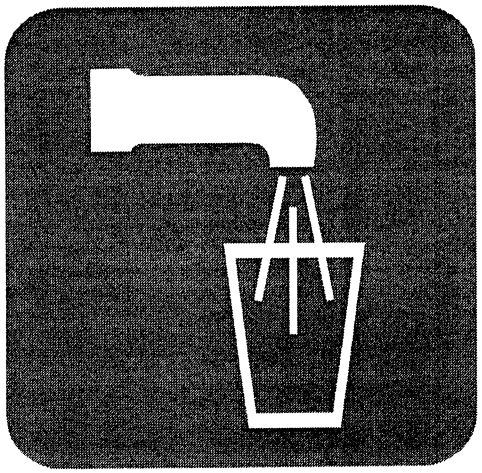
2007 Violations:

**Total Trihalomethanes (TTHMs)** testing was not completed as scheduled in 2007. Testing has been rescheduled for 2008.

**Gross Alpha Radioactivity** testing was not completed as scheduled in 2007. Testing has been rescheduled for 2008.

For questions on these violations, please call 530-633-2785

# CITY OF WHEATLAND



# 2007 WATER QUALITY CONSUMER CONFIDENCE REPORT

# 2007 Water Quality Consumer Confidence Report
## Public Water System Number 5810004

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

The City of Wheatland is pleased to provide our consumers with the pertinent information about the quality of our drinking water. This report tells you where our water comes from, what our test show about it, and other information. The safety of our water supply has remained our top priority and we will notify you immediately if there is any reason for concern. We are providing this information to you so you can make informed choices about your water supply. For additional information concerning your drinking water, contact Larry Panteloglow Sr. at 530-633-8192.

**Water Sources:**
Water supply for the City of Wheatland originates from six deep groundwater sources known as Wells #3, #4, #5, #6, #7 and # 8. The water system has one ground level storage tank with a capacity 660,000 gals and one elevated storage tank that holds 72,000 gals. The city's average water consumption in the summer months is approximately 1,500,000 gals per day and a peak demand around 1,700,000 gals per day. Sodium hypochlorite solution (bleach) is added at each well head source to disinfect and to ensure the kill of any disease causing bacteria that could be present. The water department is regulated by USEPA and the CA Department of Public Health.

**Definitions of some of the terms 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 technologically, and economically feasible.
**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 Disinfection Level (MRDL):** The level of disinfectant added for water treatment that may not be exceeded at the consumer'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. MRDLG's are set by the U.S. Environmental Protection Agency.
**ppb:** parts per billion or micrograms per liter
**ppm:** parts per million or milligrams per liter
**nd**: non detectable at testing limit
**UCMR**: unregulated chemical with no MCL

**Microbiological Water Quality:**
Testing for bacteriological contaminates in the distribution system is required by State regulations. This testing is done regularly to verify that the water system is free from coliform bacteria. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other; potentially-harmful, bacteria may be present. The minimum number of tests required by Dept of Health Services per month is four. The city collects five per month with a total of 60 samples collected for the year. The highest number of samples found to contain coliform bacteria during any one month was zero (0).

**Lead & Copper Testing Results:**
Lead & copper testing of water from individual household taps in the distribution system is required by State regulations. Typically copper and lead sources come from internal corrosion of household plumbing systems. The table below summarizes the most recent monitoring for these constituents. The 90th percentile level for lead and copper must be less than the action level.

| | Year Tested | Number of samples collected | Number of above action level | 90th Percentile Result (ppb) | Action Level (ppb) |
|---|---|---|---|---|---|
| Lead | 2005 | 40 | 1 | 5.8 | 15 |
| Copper | 2005 | 40 | 0 | 380 | 1300 |

**DETECTED CONTAMINANTS IN OUR WATER:**
The following table gives a list of all detected chemicals in our water during the most recent sampling. Please note that not all sampling is required annually so in some cases our results are more that one year old. The following tables list only organic, inorganic, and secondary chemicals that were detected in your water. Your water is tested for nearly 100 other chemicals including the gas additive MTBE, mercury, pesticides, herbicides, and other non-regulated compounds that were **not detected**. The minimum detection level is typically in parts per billion or parts per trillion.

| | Source | Year Tested | Level Detected | MCL | PHG | Major Source |
|---|---|---|---|---|---|---|
| **INORGANIC CONTAMINANTS** | | | | | | |
| Fluoride | Well3<br>Well 4<br>Well 5<br>Well 7<br>Well 8 | 2004<br>2006<br>2005<br>2007<br>2006 | 170 ppb<br>140 ppb<br>200 ppb<br>190 ppb<br>340 ppb | 1400 | 1000 | Erosion of natural deposits; water additive which promotes strong teeth; |
| Nitrate ($NO_3$) | | | Range-ppm | 45 | 45 | Runoff and leaching from fertilizer use; leaching from septic tanks, sewage |
| | Well 3 | 2007 | 3.10-3.88 | | | |
| | Well 4 | 2007 | 4.94-5.25 | | | |
| | Well 5 | 2007 | 1.81-4.34 | | | |
| | Well 6 | 2007 | 4.46-4.72 | | | |
| | Well 7 | 2006 | 8.4 - 9.4 | | | |
| | Well 8 | 2007 | 0.503-0.557 | | | |
| Nickel | Well 7 | 2007 | 10.7 ppb | 100 | 12 | Runoff and leaching from fertilizer use; leaching from septic tanks, sewage |
| Selenium | Well 5<br>Well 6 | 2003<br>2003 | 5.5 ppb<br>8.2 ppb | 50 | None | Erosion/leaching of natural deposits |
| Cadmium | Well 5 | 2003 | 1.2 ppb | 5 | 0.07 | Erosion of natural deposits |

| | Source | Year Tested | Level Detected | MCL | PHG | Major Source |
|---|---|---|---|---|---|---|
| **SODIUM AND HARDNESS TEST RESULTS** | | | | | | |
| Sodium | Well 3<br>Well 4<br>Well 5<br>Well 6<br>Well 7<br>Well 8 | 2002<br>2006<br>2006<br>2006<br>2001<br>2006 | 32 ppm<br>29 ppm<br>15 ppm<br>25 ppm<br>123 ppm<br>63.1 ppm | None | None | Erosion of natural deposits |
| Total Hardness | Well 3<br>Well 4<br>Well 5<br>Well 6<br>Well 7<br>Well 8 | 2003<br>2006<br>2006<br>2006<br>2006<br>2006 | 31 ppm<br>273 ppm<br>134 ppm<br>242 ppm<br>240 ppm<br>66 ppm | None | None | Erosion of natural deposits |

**Total Water Hardness Table**

| | | | |
|---|---|---|---|
| Soft- | 0-60 ppm | = | 0-3 Grains/Gal |
| Semi-Hard - | 61-120 ppm | = | 4-7 Grains/Gal |
| Hard - | 121-180 ppm | = | 8-10 Grains/Gal |
| Very Hard - | Over 180 ppm | = | Over 10 Grains/Gal |

**Turbidity** is the measurement of the cloudiness of the water.

**Total Dissolved Solids** (TDS) is a measure of the total amount of all material that are dissolved in water.

**Odor Threshold** is the minimum odor of water sample that can just be detected after successive dilutions with odorless water.

**Color** is determined by visual comparison of the sample with known concentrations of colored solutions.

**Fluoridation**: At this time the city does not add fluoride to the water supply. Fluoride occurs naturally in the groundwater at a level of approximately 0.25 ppm.

| | Source | Year Tested | Level Detected | MCL | PHG | Major Source |
|---|---|---|---|---|---|---|
| **SECONDARY STANDARDS** | | | | | | |
| Iron | Well 3 | 2004 | 130 ppb | 300 | None | Erosion/ leaching of natural deposits |
| Color | All Wells | 2006 | 1 unit | 15 units | None | Erosion of natural deposits |
| Odor Threshold | Well 6 | 2006 | 1 unit | 3 Unit | 3 Unit | Erosion of natural deposits |
| Turbidity | Well # 3<br>Well # 4<br>Well # 5<br>Well # 6<br>Well # 7<br>Well # 8 | 2006<br>2006<br>2006<br>2006<br>2006<br>2006 | 0.10 NTU<br>0.25 NTU<br>0.15 NTU<br>0.20 NTU<br>0.25 NTU<br>0.20 NTU | 5 NTU | None | Erosion of natural deposits |
| Total Dissolved Solids | Well 3<br>Well 4<br>Well 5<br>Well 6<br>Well 7<br>Well 8 | 2004<br>2005<br>1999<br>1999<br>2007<br>2003 | 290 ppm<br>310 ppm<br>334 ppm<br>338 ppm<br>690 ppm<br>263 ppm | 1000 | None | Erosion / leaching of natural deposits |
| Chloride | Well 3<br>Well 4<br>Well 7<br>Well 8 | 2004<br>2004<br>2001<br>2006 | 21.9 ppm<br>34.3 ppm<br>218 ppm<br>61.1 ppm | 600 | None | Erosion / leaching of natural deposits |
| Sulfate | Well 3<br>Well 4<br>Well 5<br>Well 6<br>Well 7<br>Well 8 | 2004<br>2004<br>1999<br>1999<br>2001<br>2006 | 55.4 ppm<br>94.5 ppm<br>32 ppm<br>48 ppm<br>37.2 ppm<br>25.5 ppm | 600 | None | Erosion / leaching of natural deposits |

| | Source | Year Tested | Level Detected | MCL | PHG | Major Source |
|---|---|---|---|---|---|---|
| **UNREGULATED CONTAMINANTS** | | | | | | |
| Boron | Well 6<br>Well 7<br>Well 8 | 2003<br>2003<br>2006 | 340 ppb<br>100 ppb<br>360 ppb | UCMR | 1000 | Erosion / leaching of natural deposits |
| Vanadium | Well 3<br>Well 4<br>Well 5<br>Well 6<br>Well 7<br>Well 8 | 2003<br>2002<br>2002<br>2002<br>2003<br>2004 | 8.6 ppb<br>6.7 ppb<br>9.2 ppb<br>6.4 ppb<br>5 ppb<br>21 ppb | UCMR | None | Erosion / leaching of natural deposits |