DISINFECTANT ADDED TO WATER						
Sodium Hypochlorite Solution (Bleach)	All Sample Points	2011	Avg. (ppm)	Range (ppm)	MRDL	MRDLG
			0.63	0.53 - 0.73	4.0	4.0

Bleach in Water:
Why do we put bleach in the water? Bleach is an oxidizing agent used as a disinfectant that, when added to water, kills microorganisms such as bacteria and viruses. The State of California requires that we maintain a minimum residual of 0.2 parts per million (ppm) of chlorine in our water at all times to kill any potential microorganisms.

Microbiological Water Quality:
The simple fact is bacteria and other micro-organisms are naturally present in the environment and can be found all around us: in our food; on our skin; in our bodies; and, in the air, soil and water. Some are harmful to us and some are not. Testing for these bacteriological contaminates in the distribution system is required by State regulations. The testing is done regularly to verify that the water system is free from coliform bacteria which 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 Ca Dept. of Public Health per month is four (4). The City collects five (5) per month with a total of 60 samples collected annually. The highest number of samples found to contain coliform bacteria during any one month was zero (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.

Important Health Information:
In order to ensure that tap water is safe to drink, USEPA and the CA Dept of Public Health prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. 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. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (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 more information about contaminates and potential health effects are available from the USEPA's Safe Drinking and Water Hotline at (800) 426-4791or go online to *www.epa.gov/safewater.*

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.

Lead:
Pregnant women, infants, and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. City of Wheatland is responsible for providing high quality drinking water, but 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 (800-426-4791) or at http://www.epa.gov/safewater/lead.

Arsenic:
While your drinking water meets and is well below the federal and state standard of MCL 10ppb for arsenic, it does contain very low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

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:

CDPH Valley District Office
415 Knollcrest Drive
Suite 110, Redding, CA 96002
Reese Crenshaw at 530-224-4867

or at

City of Wheatland
111 C Street
Wheatland, CA 95692

The Truth about Bottled Water:
Did you know that the average bottle of water can cost up to 1,000 times more than tap water? Despite what it's higher cost would lead us to believe, estimates are that 25- 40% of the bottled water on the market is simply repackaged tap water. Tap water is regulated by the Environmental Protection Agency (EPA) under the Safe Drinking Water Act, while bottled water is considered a food and is thus regulated by the Food and Drug Administration (FDA). Though some bottlers may voluntarily exceed FDA standards, those standards are less stringent than for tap water. Info visit *www.DrinkTap.org.*

Possible Options:
During these economically sensitive times, it's important to know that you have other, more affordable options to bottled water:

1. Chill a pitcher of tap water in your refrigerator:
To enhance the taste of tap water, one simple suggestion is to leave an open pitcher in the refrigerator overnight. The exposure to the air allows the small amount of chlorine, which is added to all tap water to ensure adequate disinfection and maintain high quality, to evaporate. Using the chilled water pitcher with refillable water bottles or thermoses allows for an inexpensive way to achieve portability and a refreshing taste.

2.. Water Filtration Systems:
Another possibility is to install a home water filter system. These systems are convenient, easy to use, and enhance the taste of water. These systems achieve the same desired results, while still costing a fraction of the price of bottled water. For info on CA certified water filtration systems, click on the Devices and Machines of Public Health website, www.cdph.ca.gov.

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CITY of WHEATLAND

2011 WATER QUALITY CONSUMER CONFIDENCE REPORT

wheatland.ca.gov

2011 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.

City of Wheatland is pleased to present our 2011 annual water quality report to our customers. This edition covers all testing completed from Jan 1, 2011 through Dec 31, 2011. We are pleased to tell you that our compliance with the state and federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source protection, water conservation, and community education, while continuing to serve the needs of all of our water users. 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 Donald R. Scott at 530-633- 2785 or at don@wheatland.ca.gov.

Where does my water come from?

Water supply for the City of Wheatland originates from six deep groundwater sources known as Wells #3, #4, #5, #6, #7 and # 8 ranging from a depth of 159 to 280 feet below ground level. The water system has one ground level storage tank which holds 660,000 gals and one elevated storage tank that hold 72,000 gals. The elevated storage tank is used primarily to keep a constant pressure of approximately 48-50 psi throughout the water system grid. The average water consumption in the summer months is approximately 1,300,000 gals per day with a peak demand of 1,600,000 gals per day. Sodium hypochlorite solution (also known as bleach) is added at each well source head to disinfect and kill any possible disease causing bacteria. The amount of bleach that is injected into the water is closely monitored by the operator and the SCADA (Supervisory Control and Data Acquisition) computer system. SCADA computer system controls and monitors the complete water system and the operator can observe or control the On/Off status, flow rate, pressure (psi), chlorine residual level, and well's on/off tank levels at each well site. In the event of a problem occurring after hours or weekends, the SCADA system has an alarm system that dials the 24 hr standby operator on duty so he may log on his computer at home to fix the problem or quickly respond if needed. The Wheatland Water Department is inspected annually by the CA Dept. of Public Health. We are required to follow all regulations set forth by U.S. Environmental Protection Agency and CA Dept. of Public Health, including a strict sample monitoring schedule. A copy of the inspection report is available upon request. Please know, your water meets or exceeds all state and federal standards.

2011 Water Totals

One Day Max Flow – 1,561,000 Gals (20 Jun 2011)
Month Max Flow – 37,009,000 Gals (August)
Year Total Water Produced – 250,235,000 Gallons
Average cost per gallon to our customers- $0.004

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
NTU: Nephelometric Turbidity Units
Threshold Odor Number (TON):

DETECTED CONTAMINANTS IN YOUR WATER:

The following tables give a list of all detected chemicals in our water during the most recent sampling. The US Environmental Protection Agency (EPA) and the CA Dept of Public Health (DPH) set the testing schedule. Please note that not all sampling is required annually so in some cases 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 that if not listed, were found to be **not detected**. The minimum detection level is typically in parts per million, parts per billion, or parts per trillion. Test results are then compared to state and federal standards to confirm your water meets all drinking water health standards.

Chemical Detected	Source	Year Tested	Level Detected	MCL	PHG	Major Source
INORGANIC CONTAMINANTS						
Fluoride (Natural Source)	Well3	2004	170 ppb	2000	1000	Erosion of natural deposits; water additive which promotes strong teeth
	Well 4	2011	127 ppb			
	Well 5	2005	200 ppb			
	Well 6	1999	130 ppb			
	Well 7	2008	271 ppb			
	Well 8	2009	355 ppb			
Nitrate (NO_3)	Well 3	2011	13.9 ppb	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage
	Well 4	2011	21.6 ppb			
	Well 5	2011	16.3 ppb			
	Well 6	2011	21.5 ppb			
	Well 7	2011	6.8 ppb			
	Well 8	2011	7.1 ppb			
Cadmium	Well 5	2003	1.2 ppb	5	0.07	Erosion/leaching of natural deposits
	Well 6	2003	0.50 ppb			
Selenium	Well 4	2003	5.0 ppb	50	None	
	Well 5	2003	5.5 ppb			
	Well 6	2009	8.2 ppb			
Barium	Well 3	2004	85 ppb	1000	None	
Nitrite (as N)	Well 7	2009	0.25 ppb	1000	None	
Arsenic	Well 3	2011	1.8 ppb	10	0.004	
	Well 5	2010	1.2 ppb			
	Well 7	2010	1.4 ppb			
SODIUM AND HARDNESS TEST RESULTS						
Sodium	Well 3	2011	39.3 ppm	None	None	Erosion of natural deposits
	Well 4	2006	15 ppm			
	Well 5	2006	24 ppm			
	Well 6	2006	15 ppm			
	Well 7	2010	71 ppm			
	Well 8	2006	63.1 ppm			
Total Hardness (as CACO3)	Well 3	2003	222 ppm	None	None	
	Well 4	2006	273 ppm			
	Well 5	2006	134 ppm			
	Well 6	2006	242 ppm			
	Well 7	2006	204 ppm			
	Well 8	2006	66 ppm			
UNREGULATED CONTAMINANTS						
Boron	Well 6	2003	340 ppb	UCMR	1000	Erosion/ Leaching of natural deposits
	Well 7	2003	100 ppb			
	Well 8	2006	360 ppb			
Vanadium	Well 3	2003	8.6 ppb	UCMR	None	
	Well 4	2002	6.7 ppb			
	Well 5	2002	9.2 ppb			
	Well 6	2002	6.4 ppb			
	Well 7	2003	5 ppb			
	Well 8	2004	21 ppb			

Chemical Detected	Source	Year Tested	Level Detected	MCL	PHG	Major Source
SECONDARY STANDARDS						
Color	Well 3	2009	1 Unit	15 Units	None	Erosion/ Leaching of natural deposits
	Well 4					
	Well 5					
	Well 7					
	Well 8					
	Well 6		2 Unit			
Odor Threshold	Well 4	2009	1 TON	3 TON	3 TON	Erosion/ Leaching of natural deposits
	Well 5					
	Well 6					
	Well 7					
	Well 8					
	Well 6		2 TON			
Turbidity	Well 3	2009	0.05 NTU	5 NTU	None	Erosion/ Leaching of natural deposits
	Well 4	2009	0.2 NTU			
	Well 5	2009	0.2 NTU			
	Well 6	2009	5.2 NTU			
	Well 7	2009	0.3 NTU			
	Well 8	2009	0.1 NTU			
Total Dissolved Solids	Well 3	2004	290 ppm	1000	None	Erosion/ Leaching of natural deposits
	Well 4	2005	310 ppm			
	Well 5	2008	310 ppm			
	Well 6	2008	330 ppm			
	Well 7	2008	450 ppm			
	Well 8	2009	260 ppm			
Iron	Well 8	2010	149 ppb	300	None	Erosion/ Leaching of natural deposits
Chloride	Well 3	2004	18.6 ppm	600	None	
	Well 5	2008	40.8 ppm			
	Well 6	2011	18.0 ppm			
	Well 7	2004	287 ppm			
	Well 8	2009	57.7 ppm			
Sulfate	Well 3	2004	55.4 ppm	600	None	
	Well 5	2008	22.0 ppm			
	Well 6	2011	65 ppm			
	Well 7	2004	51.3 ppm			
	Well 8	2009	27.1 ppm			

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. (90 percentile result level is the result that is less than the top 9%)

	Year Tested	Number of samples collected	Number of above action level	90th Percentile Result (ppb)	Action Level (ppb)
Lead	2011	42	0	2.0	15
Copper	2011	42	0	275	1300

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 is dissolved in water.

Odor Threshold Number 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.

Fluoride: At this time the city does not add fluoride to the water supply. Fluoride occurs naturally in the groundwater at a level of approximately 0.21 ppm.