

# City of Hughson

## Water Quality Report - 2004

**This brochure is a snapshot** of the quality of the water that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to State standards. We are committed to providing you with information because informed customers are our best allies.

For more information about your water, call (209)883-4054 and ask for Tom Kehoe. **Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.**

### **Your water comes from 4 sources:**

1. Well 03
2. Well 04-New 98
3. Well 05
4. Well 06

**The sources of drinking water** (both tap water and bottled water) included rivers, lakes, streams, ponds, reservoirs, spring, 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.

**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 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.
- ◆ *Radioactive contaminants*, which can be naturally occurring or the result of oil production and mining activities.
- ◆ *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and

septic systems.

**In order to ensure that tap water is safe** to drink, USEPA and the California Department of Health Services (Department) prescribes regulations which 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 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 EPA's Safe Drinking Water Hotline (800-426-4791).

**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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care provider. EPA/CDC guideline on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791)

## City of Hughson

### WATER QUALITY DATA - 2004

The table below lists all the drinking water contaminants that we detected during the 2004 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 - December 31, 2004. The State requires us to monitor for certain contaminants less than once per year because the concentrations of those contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

**Terms & abbreviations used below:**

- **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 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 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.
- **Regulatory Action Level(AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Primary Drinking Water Standards(PDWS):** MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- **Secondary Drinking Water Standards(SDWS):** MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.
- **Treatment Technique(TT):** A required process intended to reduce the level of a contaminant in drinking water.
- **n/a:** not applicable • **ND:** not detectable at testing limit • **NS:** no standard or not regulated • **MFL:** million fibers per liter
- **NTU:** Nephelometric Turbidity Units • **pCi/l:** picocuries per liter (a measure of radioactivity) • **ppb:** parts per billion or micrograms per liter ( $\mu\text{g/L}$ ) • **ppm:** parts per million or milligrams per liter ( $\text{mg/L}$ ) • **ppq:** parts per quadrillion or picograms per liter ( $\text{pg/L}$ ) • **ppt:** parts per trillion or nanograms per liter ( $\text{ng/L}$ )

Lead and Copper Rule							
Detected Contaminants	Units	No. of Samples Collected	No. Site Exceeding AL	90th Percentile Level	AL	PHG	Typical Sources of Contaminant
Lead (Pb)	ppb	20 (2004)	0	0.70	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers, erosion of natural deposits
Copper	ppm	21 (2004)	0	0.0220	1.3	.17	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Primary Drinking Water Standards (PDWS)							
Detected Contaminants	Units	MCL	PHG (MCLG)	Average	Result Range	Typical Sources of Contaminant	
Inorganic Arsenic (As)	ppb	50	n/a	11.5	ND - 20 (2004-2004)	Erosion of natural deposits; runoff from orchards, glass and electronics production wastes	

Item(s) shaded are greater than MCL or AL. Additional information regarding the violation is provided below.

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**City of Hughson**  
**WATER QUALITY DATA - 2004**

Primary Drinking Water Standards (PDWS)						
Detected Contaminants	Units	MCL	PHG (MCLG)	Result		Typical Sources of Contaminant
				Average	Range	
<b>Inorganic</b> Barium (Ba)	ppm	1	2	0.0840	0.0437-0.138 (2003-2003)	Discharge from oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (Total Cr)	ppb	50.0		4.3	3 - 6 (2003-2003)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (F)	ppm	2	1	0.25	0.2 - 0.3 (2003-2004)	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Mercury	ppb	2	1.2	ND	ND - 0.01 (2003-2003)	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland
Nitrate (NO3)	ppm	45	45	13.1	1.8 - 28.8 (2004-2004)	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (Se)	ppb	50		ND	ND - 2 (2003-2003)	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots(feed additive)
<b>Radioactivity</b> Gross Alpha	pCi/L	15		2.42	ND - 8.82 (2004-2004)	Erosion of natural deposits.
Uranium	pCi/L	20	0.5	5.32	5.0 - 5.6 (2004-2004)	Erosion of natural deposits
<b>Organic</b> Dibromochloropropane (DBCP)	ppt	200	1.7	29	ND - 70 (2004-2004)	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit
Secondary Drinking Water Standards (SDWS)						
Detected Contaminants	Units	MCL	PHG (MCLG)	Result		Typical Sources of Contaminant
				Average	Range	
<b>Inorganic</b> Chloride	ppm	500		16.0	9 - 23 (2003-2004)	Runoff/leaching from natural deposits; seawater influence
Corrosivity (Langlier Index)		> 0		-0.2	0 - 0.0 (2003-2004)	Natural or industrial-influenced balance of hydrogen, carbon and oxygen in the water, affected by temperature and other factors.

Item(s) shaded are greater than MCL or AL. Additional information regarding the violation is provided below.

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Secondary Drinking Water Standards (SDWS)						
Detected Contaminants	Units	MCL	PHG (MCLG)	Result		Typical Sources of Contaminant
				Average	Range	
Inorganic Manganese (Mn)	ppb	50		10	ND - 30 (2003-2004)	Leaching from natural deposits
Specific Conductance	umhos/cm	1600		392	315 - 588 (2003-2004)	Substances that form ions when in water seawater influence
Sulfate (SO <sub>4</sub> )	ppm	500		8.5	1 - 20 (2003-2004)	Runoff/leaching from natural deposits; industrial wastes
TDS	ppm	1000		265	210 - 390 (2003-2004)	Runoff/leaching from natural deposits
Unregulated Contaminants						
Detected Contaminants	Units	MCL	PHG (MCLG)	Result		Typical Sources of Contaminant
				Average	Range	
Inorganic Boron	ppm	NS		0.10	ND - 0.2 (2003-2004)	
Sodium	ppm	NS		59.8	35 - 82 (2003-2004)	Sodium refers to the salt present in the water and is generally naturally occurring.
Total Hardness (as CaCO <sub>3</sub> )	ppm	NS		69.4	32 - 127 (2003-2004)	Hardness is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally-occurring.
Vanadium	ppm	NS		0.0157	0.007-0.021 (2003-2003)	

**Additional Information and Explanations**

<p><b>About our Arsenic (As):</b> Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.</p>
<p><b>About our Nitrate (NO<sub>3</sub>):</b> Nitrate in drinking water at level above 45 mg/L 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 a 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 certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.</p>
<p><b>About our Corrosivity (Langlier Index):</b> Corrosivity less than 0 indicates your water may be corrosive to the plumbing and fixtures. The Corrosivity MCL was set to protect you against unpleasant aesthetic affects such as color, taste and odor. Violating this MCL does not pose a risk to public health.</p>

**Compliance with Other Regulations**

The State requires us to test our water on a regular basis to ensure its safety. In the previous year, we met all sampling, treatment and reporting requirements.

**PLEASE NOTE 2 CHANGES ON PAGE 3** Mercury Average is .007 and Selenium Average is 1.33