

2008 Consumer Confidence Report

Water System Name: City of Hughson

Report Date: April 2009

We test the drinking water quality for many constituents as required by state and federal regulations. This reports shows the results of our monitoring for the period of January 1 - December 31, 2008

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

Type of water source(s) in use:

Well 03 was taken out of service in February 08 to be rebuilt and has not been in service yet.

Your water comes from 5 sources: Well 03, Well 04 , Well 05, Well 06 and Well 07.

For more information about this report, or for any questions relating to your drinking water, please call (509) 505 - 3049 and ask for Sam Rush. Meetings are held between the Distribution Operator Eric Lovejoy and the Superintendent Sam Rush almost every morning to discuss any happenings with the water system.

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 economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

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.

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 Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

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

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.

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

Variations and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (µg/L)

ppt: parts per trillion or nanograms per liter (ng/L)

pCi/l: picocuries per liter (a measure of radioactivity)

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.

2008 Consumer Confidence Report

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, the 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.

Tables 1,2,3,4,5 and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituents. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, through representative of the water quality, are more than one year old.

TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (to be completed only if there was a detection of bacteria)	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Sources of Contaminant/Total Coliform Bacteria

Any violation of MCL, AI or MRDL is shaded. Additional information regarding the violation is provided later in this report.

TABLE 2 - SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL (MRDL)	PHG (MCLG) (MRDLG)	Typical Sources of Contaminant
Sodium (ppm)	2008	68	59 - 91	none	none	Sodium refers to the salt present in the water and is generally naturally occurring.
Hardness (ppm)	2008	63	30 - 175	none	none	Hardness is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally-occurring.

TABLE 3 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARDS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL (MRDL)	PHG (MCLG) (MRDLG)	Typical Sources of Contaminant
Arsenic (As) ppb	2008	12.9	7 - 23	10	n/a	Erosion of natural deposits; runoff from orchards, glass and electronics production wastes

2008 Consumer Confidence Report

TABLE 3 - DETECTION OF CONTANINANTS WITH A PRIMARY DRIKING WATER STANDARDS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL (MRDL)	PHG (MCLG) [MRDLG]	Typical Sources of Contaminant
Barium (Ba) ppm	2008	0.13	0.09 - 0.2	1	2	Discharge from oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (Total Cr) ppb	2008	3	2 - 3	50.0	n/a	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (F) ppm	2008	0.4	ND - 0.5	2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (NO3) ppm	2008	20.1	3 - 42	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Gross Alpha pCi/L	2008	1.9	0.3 - 4	15	n/a	Erosion of natural deposits.
Gross Beta pCi/L	2008	2.0	2 - 2	50	n/a	Decay of natural and man-made deposits.
Uranium pCi/L	2008	3.4	3 - 4	20	0.5	Erosion of natural deposits
Carbon Tetrachloride ppt	2008	200	ND - 1400	500	n/a	Discharge from chemical plants and other industrial activities
1,2-Dichloroethane (1,2-DCA) ppt	2008	85.7	ND - 600.0	500	400	Discharge from industrial chemical factories
Dibromochloropropane (DBCP) ppt	2008	48	30 - 80	200	1.7	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit

Any violation of MCL, AI or MRDL is shaded. Additional information regarding the violation is provided later in this report.

TABLE 4 - DETECTION OF CONTANINANTS WITH A SECONDARY DRIKING WATER STANDARDS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL (MRDL)	PHG (MCLG)	Typical Sources of Contaminant
Chloride ppm	2008	20	13 - 37	500	n/a	Runoff/leaching from natural deposits; seawater influence
Color (Unfiltered) Units	2008	6	ND - 11	15	n/a	Naturally-occurring organic materials
Corrosivity (Langlier Index)	2008	-1	-2 - 0.08	> 0	n/a	Natural or industrial-influenced balance of hydrogen, carbon and oxygen in the water, affected by temperature and other factors.
Iron (Fe) ppb	2008	190	ND - 2600	300	n/a	Leaching from natural deposits; Industrial wastes
Manganese (Mn) ppb	2008	15	ND - 70	50	n/a	Leaching from natural deposits
Odor Threshold at 60 °C TON	2008	1	ND - 8	3	n/a	Naturally-occurring organic materials.

2008 Consumer Confidence Report

TABLE 4 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARDS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL (MRDL)	PHG (MCLG)	Typical Sources of Contaminant
Specific Conductance umhos/cm	2008	443	336 - 705	1600	n/a	Substances that form ions when in water; seawater influence
Sulfate (SO4) ppm	2008	16.1	3.0 - 111	500	n/a	Runoff/leaching from natural deposits; industrial wastes
TDS ppm	2008	280	220 - 430	1000	n/a	Runoff/leaching from natural deposits
Zinc (Zn) ppm	2008	0.003	ND - 0.02	5	n/a	Runoff/leaching from natural deposits

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TABLE 5 - DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Notification Level	Health Effects Language
Boron ppm	2008	0.1	1000	The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.
Vanadium ppm	2008	0.02	50	The babies of some pregnant women who drink water containing vanadium in excess of the action level may have an increased risk of developmental effects, based on studies in laboratory animals.
Bromodichloromethane ppb	2008	0.3		
Bromoform ppb	2008	0.3		
Chloroform (Trichloromethane) ppb	2008	0.61		
Chloromethane (Methyl Chloride) ppb	2008	0.23		
Dibromochloromethane ppb	2008	0.33		

TABLE 6 - DETECTION OF FEDERAL DISINFECTANT/DISINFECTANT BYPRODUCT RULE

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL (MRDL)	PHG (MCLG)	Typical Sources of Contaminant
Total Trihalomethanes (TTHMs) ppb	2008	5	ND - 10.1	80	n/a	By-product of drinking water chlorination

2008 Consumer Confidence Report

Additional General Information on Drinking Water

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)

Summary Information for Contaminants Exceeding an MCL, MRDL, or AL, or a violation of Any Treatment Technique or Monitoring and Reporting Requirement

About our Total 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. Coliforms were found in more samples than allowed and this was a warning of potential problems.

About our Arsenic (As): 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. Wells #4, #5, #6 slightly exceeded state mandated levels for arsenic. Every quarter Hughson residents were notified by a letter in their monthly utility bill as well a published statement in the local newspaper as required by the state. Even though the 4th qtr arsenic levels were below the state's MCL they still submitted a compliance plan to the state and are awaiting approval.

About our Nitrate (NO₃): 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.

About our Carbon Tetrachloride: Some people who use water containing carbon tetrachloride in excess of the MCL over many years may experience liver problems, and may have an increased risk of getting cancer.

About our 1,2-Dichloroethane (1,2-DCA): Some people who use water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.

About our Corrosivity (Langlier Index): 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.

About our Iron (Fe): Iron was found at levels that exceed the secondary MCL. The Iron MCL was set to protect you against unpleasant aesthetic affects such as color, taste, odor and the staining of plumbing fixtures (e.g., tubs and sinks), and clothing while washing. Violating this MCL does not pose a risk to public health.

About our Manganese (Mn): Manganese was found at levels that exceed the secondary MCL. The Manganese MCL was set to protect you against unpleasant aesthetic affects such as color, taste, odor and the staining of plumbing fixtures (e.g., tubs and sinks), and clothing while washing. Violating this MCL does not pose a risk to public health.

About our Odor Threshold at 60 °C: Odor was found at levels that exceed the secondary MCL. The Odor MCL was set to protect you against unpleasant aesthetic affects such as color, taste, odor and the staining of plumbing fixtures (e.g., tubs and sinks), and clothing while washing. Violating this MCL does not pose a risk to public health.

