City of Hanford
Department of Public Works
900 S. 10th Avenue
Hanford, CA 93230-5234

IMPORTANT NOTIFICATION

2013 Consumer Confidence Report

Consumer Confidence Report (CCR)
2013

Este informe contiene informacion muy importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien.

The City of Hanford Public Works Department Water Division is pleased to present to you this year's Consumer Confidence Report (formerly Annual Water Quality Report). This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe, high quality and dependable supply of drinking water. We want you to understand the efforts we make to continually improve water quality and protect our water resources. We are committed to ensuring the quality of your water.

If you have any questions about this report or your water utility, please contact the Public Works Department, Utilities Division at 585-2550. We want our valued customers to be informed about their water quality.

The City Council of the City of Hanford meets on the first and third Tuesdays of the month at 7:00 PM in the council chambers located in the Civic Auditorium, 400 N. Douty Street to discuss and/or take action on various matters that affect the community. At times issues regarding water system improvements or quality are on the agenda. Public input is also appreciated and is taken into consideration during the discussions and formal actions.

Our water source is strictly ground water taken from wells. The wells pump water into an intricate network of water mains and services from aquifers deep beneath the city. The City of Hanford system has 13 active well sources and 1 standby well source. A ground water protection assessment of our source water was completed May 2003. You may request a copy of the assessment be sent to you by contacting the California Department of Public Health district engineer at (559) 447-3300 or the Public Works Department, Utilities Division at (559) 585-2550. In general, the city's water supply sources were most vulnerable to the following activities "not associated with any detected contaminants": sewer collection/septic systems, agricultural/irrigation wells, and gas stations/auto repair processes. However the source may still be considered vulnerable to activities located near the drinking water sources. The City of Hanford Public Works Department, Utilities Division will continue to monitor the quality and integrity of its source water and distribution system in accordance with current federal and state regulations, and continue to utilize the most stringent regulations in the construction of new water wells to protect the source aquifers from any possible contamination.

The City of Hanford routinely monitors your drinking water for over 120 drinking water contaminants in conformance with Federal and State laws. This report shows the results of our monitoring for the period of January 1, 2013 to December 31, 2013. Some past test results outside of the aforementioned time period have been included for your information. The contaminants that were detected are listed in Tables 1 through 7 in this report.

Special Health Information

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 United States Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (1-800-426-4791) or find it on EPA's website (http://water.epa.gov/drink/standards/hascience.cfm).
California's notification levels are available on the Department's website (http://www.cdph.ca.gov/certlic/drinkingwater/Pages/notificationlevels.aspx).

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 providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Additional General Information on Drinking Water

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 from human activity.

Contaminants that may be present in source water include:

- ***Microbial contaminants***, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- ***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***, that 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 byproducts of industrial processes and petroleum production and can also come from gas stations, urban storm water runoff, agricultural applications and septic systems.
- ***Radioactive contaminants***, that can be naturally occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health (Department) 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.

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

TABLE DEFINITIONS and ABREVIATIONS

In this report you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we have provided the following definitions:

Non-Detects (ND) – Laboratory analysis indicates that the constituent is not present at testing limit.

Detection Limits for purposes of Reporting (DLR) – The minimum quantification or detection level of a constituent's presence.

Parts per million (ppm) or Milligrams per liter (mg/l) – One part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter (µg/l) – One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) – One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) – One part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in $10,000,000,000,000.

Picocuries per liter (pCi/L) – Picocuries per liter is a measure of the radioactivity in water.

Nephelometric Turbidity Unit (NTU) – Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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.

Maximum Residual Disinfectant Level (MRDL) – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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.

Primary Drinking Water Standards (PDWS) – MCLs and MRDLs 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 health at the MCL levels.

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

In accordance with the "Primary Drinking Water Standards", the following tables (tables 1 through 5) list contaminants that <u>were detected</u> during the most recent testing:

Table 1 - Lead and Copper

Contaminant	Year Sampled	Action Level	PHG	No. of Samples Collected	90th Percentile Level Detected	No. of Sites Exceeding Action Level	Violation	Typical Source of Contaminant
Lead (ppb)	2011	15	0.2	41	ND	0	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	2011	1.3	0.3	41	ND	0	No	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives

NOTE: Action levels for copper and lead, which are to be met at customer tap, are used to determine the treatment requirements that a water system is required to complete. The "90th Percentile Level Detected" is based on the sample results for highest 10 percent of the tap water samples collected during any monitoring period.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Hanford Public Works Department, Utilities Division 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 EPA's Safe Drinking Water Hotline (1-800-426-4791) or at http://www.epa.gov/safewater/lead.

Table 2 - Radioactive Contaminants

Contaminant	Year Sampled	Unit Measurement	MCL	PHG	MCLG	DLR	Average Level Detected	Range	Violation	Typical Source of Contaminant
Alpha Activity, Gross	2005-2013	pCi/L	15	None	0	3	1.76	ND – 8.83	No	Erosion of natural deposits

Table 3 - Arsenic										
Contaminant	**Year Sampled**	**Unit Measurement**	**MCL**	**PHG**	**MCLG**	**DLR**	**Average Level Detected**	**Range**	**Violation**	**Typical Source of Contaminant**
Arsenic, 13 Compliant Active Well Sources	2008 - 2013	ppb	10	0.004	None	2	3.99	ND – 9.70	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes

City of Hanford is in Compliance with Federal and State Arsenic Drinking Water Standards.

While your drinking water meets the federal and state standard for arsenic, it does contain 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.

Table 4 - Inorganic Contaminant										
Contaminant	**Year Sampled**	**Unit Measurement**	**MCL**	**PHG**	**MCLG**	**DLR**	**Average Level Detected**	**Range**	**Violation**	**Typical Source of Contaminant**
Aluminum	2009 - 2012	ppb	1000	600	None	50	160	ND – 600	No	Erosion of natural deposits; residue from some surface water treatment processes
Fluoride	2009 - 2012	ppb	2000	1000	None	100	1251	960 – 1600	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Selenium, Total	2009 - 2012	ppb	50	30	None	5	0	ND	No	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)

Table 5 - Unregulated at this Time, No "MCL"										
Contaminant	**Year Sampled**	**Unit Measurement**	**MCL**	**PHG**	**MCLG**	**DLR**	**Average Level Detected**	**Range**	**Violation**	**Typical Source of Contaminant**
Boron [1]	2002 - 2009	ppb	None	N/A	N/A	100	1121.2	400 - 2000	No	Naturally-occurring element found in soil and water

NOTE: Unregulated contaminant monitoring helps the EPA and the California Department of Health Services to determine where certain contaminants occur and whether the contaminants need to be regulated.

[1] ***BORON:*** We constantly monitor our water supply for various contaminants. We have detected boron in the finished water supply. There are currently no Federal Regulations for Boron levels in drinking water. The results shown above for Boron will be combined with other data taken nationwide to determine whether or not an MCL for Boron is required. Boron within our drinking water supply occurs naturally and is released into our groundwater supply from surrounding soils through natural weathering processes similar to many other chemical compounds found in groundwater.
The EPA has established a Health Reference Level (HRL) for Boron of 1400 PPB for drinking water. Based upon limited animal studies and correlations between the studies and human development, Boron at concentrations above the HRL might effect prenatal development. The EPA has determined that there are inadequate data to assess the human carcinogenic potential for Boron. For additional information, call the EPA Safe Drinking Water Act Hotline at (800) 426-4791.

In accordance with the "Secondary Drinking Water Standards", the following table (table 6) list contaminants that <u>were detected</u> during the most recent testing:

Table 6 - Secondary Standards Contaminants [a]									
Contaminant	**Year Sampled**	**Unit Measurement**	**Secondary MCL**	**PHG**	**MCLG**	**Average Level Detected**	**Range**	**Violation**	**Typical Source of Contaminant**
Aluminum	2008-2012	ppb	200	N/A	N/A	160	ND – 600	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride	2008-2012	ppm	600	N/A	N/A	158	72 - 230	No	Runoff/leaching from natural deposits; seawater influence
Iron	2008-2012	ppb	300	N/A	N/A	14	ND - 100	No	Leaching from natural deposits; industrial wastes
Manganese	2008-2012	ppb	50	N/A	N/A	13	ND – 34	No	Leaching from natural deposits
Color	2008-2012	Units	15	N/A	N/A	10	ND – 25	No	Naturally-occurring organic materials
Odor--Threshold	2008-2012	Units	3	N/A	N/A	ND	ND	No	Naturally-occurring organic materials
Specific Conductance	2008-2012	micromhos	2200	N/A	N/A	774	540 - 1000	No	Substances that form ions when in water; seawater influence
Sulfate	2008-2012	ppm	600	N/A	N/A	ND	ND	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	2008-2012	ppm	1500	N/A	N/A	461	300 - 870	No	Runoff/leaching from natural deposits
Turbidity	2008-2012	NTU	5	N/A	N/A	0.7	ND – 3.3	No	Soil runoff

[a] There are no PHGs, MCLGs, or mandatory standard health effects language for these constituents because secondary MCLs are set on the basis of aesthetics.

Table 6 - Secondary Standards Contaminants (*No Secondary MCL*)									
Contaminant	**Year Sampled**	**Unit Measurement**	**Secondary MCL**	**PHG**	**MCLG**	**Average Level Detected**	**Range**	**Violation**	**Typical Source of Contaminant**
Alkalinity	2008-2012	ppm	None	N/A	N/A	142.6	94 – 170	No	Generally found in ground and surface water
Bicarbonate	2008-2012	ppm	None	N/A	N/A	126.5	84 – 150	No	Generally found in ground and surface water
Calcium	2008-2012	ppm	None	N/A	N/A	3.8	2.1 – 6.0	No	Generally found in ground and surface water
Carbonate	2008-2012	ppm	None	N/A	N/A	19	10.0 – 27	No	Generally found in ground and surface water
Hardness	2008-2012	ppm	None	N/A	N/A	11.2	5.7 – 17	No	Generally found in ground and surface water
Magnesium	2008-2012	ppb	None	N/A	N/A	368.5	110 – 670	No	Generally found in ground and surface water
pH	2008-2012	Units	None	N/A	N/A	8.7	8.6 – 9.0	No	Generally found in ground and surface water
Sodium	2008-2012	ppm	None	N/A	N/A	158.5	120 - 200	No	Generally found in ground and surface water

<u>NOTE</u>: There are no PHGs or MCLGs for constituents with secondary drinking water standards because these are not health-based levels, but set on the basis of aesthetics.

UNITS – Minimum testing dilution value.

In accordance with the "Primary Drinking Water Standards", the following table (table 7) list contaminants that were detected during the most recent testing:

Table 7 - Microbiological Contaminants						
Contaminant	Year Sampled	MCL	MCLG	Highest Percentage Detected in a Month	Number of Months in Violation	Typical Source of Contaminant
Total Coliform Bacteria	2013	Presence of coliform bacteria in more than 5% of monthly samples.	0	3.94%	0	Naturally present in the environment

NOTE: Water systems are required to meet a strict standard for coliform and fecal / E coli 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.

ANSWERS TO FREQUENTLY ASKED QUESTIONS

WHAT ABOUT SAND, DEBRIS AND COLORED MATERIAL IN THE WATER?

Sand, debris and dark colored material which may appear in water, is most often caused by mineral deposits in the pipes within your household system, plumbing repairs or sand produced by water wells. While these deposits maybe a nuisance, there are no associated health impacts related to them. Flushing your household pipes periodically typically alleviates the problem. A persistent sand or debris problem should be reported to the Public Works Department, Utilities Water Division.

WHAT CAUSES THE ODOR IN MY WATER?

The odor is caused by the presence of hydrogen sulfide gas entrained in the groundwater. This is a natural occurring phenomenon and does not pose any health risks. Typically, the hotter the water is, the stronger the odor. Place a container in the refrigerator for drinking water, and the odor will not be noticeable.

IS OUR WATER CHLORINATED?

No! Chlorine is used mostly in surface water systems to control bacteria. Currently, no chemicals are used or added to the City water supply.

WHY IS MY WATER SOMETIMES CLOUDY?

Cloudy or milky appearance is usually caused by air bubbles in the water, which pose no health risk. If the water is allowed to sit for 10 to 20 seconds, the air will dissipate and the water will clear. If the cloudiness does not disappear, please call the Water Division so that we may investigate.

WHAT CAUSES LOW WATER PRESSURE?

Low water pressure can be caused by a home's gate valve not being fully opened, recent repairs to existing plumbing or too great a demand on the available water supply. The City's water pumping equipment is controlled through a computerized management system to operate between 40 and 55 PSI pressure.

WHY DO WATER EMPLOYEES OCCASIONALLY OPEN FIRE HYDRANTS?

This is a process known as "flushing", which is done periodically to remove sediment or sand from the water lines and ensure that water circulates adequately throughout the system. Fire hydrants may also be opened to conduct fire-flow capability tests.

Information On The Internet

The USEPA Office of Ground Water and Drinking Water (http://www.epa.gov/safewater/) and the Centers for Disease Control and Prevention (http://www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation, and public health. Also, the California Department of Public Health hosts a Web site (http://www.cdph.ca.gov/programs/Pages/DWP.aspx) that provides complete and current information on water issues in our own state.

As the City and valley population continues to grow the need for water conservation awareness is always with us.

As Daylight Savings Time has arrived again, we will be stepping up enforcement of the annual watering regulations. This will begin effective March 10, 2014. Outdoor water use shall be conducted using an alternate day schedule with Monday being a No Water Use Day. The watering days for addresses ending with 0, 2, 4, 6 or 8 are Tuesday, Thursday or Saturday, watering days for addresses ending with 1, 3, 5, 7 or 9 are Wednesday, Friday or Sunday. There will be no watering on your allocated day between 10:00 A.M. and 6:00 P.M. With the end of Daylight Savings Time, November 2, 2014 we will be relaxing the water use restrictions by allowing watering anytime on your scheduled watering day. You are still required to follow all other watering rules and observing Monday as a No Watering Day. As with any program, the cooperation and participation of everyone is the only way the water conservation program can be successful.

As usual, the City of Hanford encourages water conservation both inside and outside the home.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe, high quality and dependable water supply we sometimes need to make improvements that will benefit all of our customers.

To ensure good, clean water in all areas of the system, Utilities Division personnel will be flushing water lines at various times. Employees will request that young children not play in the water for safety reasons. If you have a problem or complaint regarding water quality, please call the Public Works, Utilities Division at 585-2550. All water delivered meets the primary drinking water standards established by the California Department of Health Services and the United States Environmental Protection Agency.

We at the City of Hanford work around the clock to provide top quality water to every residence and business. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Sincerely,

Mike Cosenza
Utilities Superintendent

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