City of Hemet 2014 Drinking Water Quality Report

CITY OF HEMET WATER DEPARTMENT ♦ 3777 INDUSTRIAL AVE ♦ HEMET CA 92545
WATER QUALITY / WATER CONSERVATION—951-765-3711

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

Inside this report:

California is now experiencing a serious drought.

We can't afford to waste any water.

There are simple ways you can reduce the amount of water used at home, both inside and out.

Learn how at:

www.saveourh2o.org

What is in this report?

The purpose of this report is to inform City of Hemet water customers about the sources and quality of our drinking water. The report includes details about where the City of Hemet's water originates, what it contains, and how it compares to standards set by regulatory agencies. All water suppliers are required by federal and state law to prepare and provide a brief annual water quality report to their customers.

In 2014, we conducted tests for over 80 contaminants. We detected only one of these contaminants, **nitrate**, at a level higher than the State allows. **As we told you at the time, our water temporarily exceeded drinking water standards. (See page 4)**

OUR WATER SOURCES

The City of Hemet has two water supply sources. Local groundwater is pumped from both the Hemet and San Jacinto Groundwater Basins by nine deep wells. Seven wells are in the Hemet Groundwater Basin and two wells are in the San Jacinto Groundwater Basin. Stormwater collected in basins infiltrates into the soil to eventually replenish our groundwater supply. The City of Hemet has two connections with Eastern Municipal Water District and one connection with Lake Hemet Municipal Water District, used only as needed to supplement our water supply.

WATER SOURCE ASSESSMENT

An assessment of the drinking water sources for the City of Hemet was completed in June 2002. City of Hemet wells are not considered vulnerable to any potential activities associated with contaminants detected in the water supply. The wells are considered most vulnerable to the following activities: sewer collection systems, a fire station, high density housing, and transportation corridors or road right of ways. To review a copy of this report, contact Ron Proze, City of Hemet Water Superintendent at (951) 765-3712.

Why is there anything in 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 USEPA's Safe Drinking Water Hotline (1-800-426-4791).

In order to ensure that tap water is safe to drink, *USEPA and the State Water Resources Control Board* (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

PUBLIC PARTICIPATION OPPORTUNITY

The Hemet City Council meets twice each month on the second and fourth Tuesday at 6:00 PM in the Council Chambers located at 450 E. Latham Avenue. Public comment is accepted during "Communications from the Public" on the agenda.

How drinking water sources become polluted

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, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application, and septic systems.

Radioactive contaminants can be naturally-occurring or be the result of oil /gas production and mining activities.

❹ **Microbiological Sampling—**In 2014 the City of Hemet collected 572 bacteriological samples to test for bacteria, including total coliform bacteria and E. coli. One sample, taken on May 7, 2014, tested positive for total coliform, but negative for E. coli. Re-sampling was conducted and all samples were negative. As a precaution, chlorine is added to the water system to maintain a "residual" of 0.4 ppm to eliminate any bacteria that may enter the system.

Special precautions to those vulnerable to contaminants

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. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the **Safe Water Drinking Hotline (1-800-426-4791)**.

Important Health Information

Nitrate: Nitrate in drinking water at levels above 45 mg/L [milligrams per liter—equivalent to parts per million (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 a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 ppm 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.

UNREGULATED CONTAMINANT MONITORING RULE (UCMR 3) LIST 1 - CONTAMINANTS DETECTED

CONTAMINANT	UNIT	STANDARDS		CITY OF HEMET WELL WATER		EMWD CONNECTIONS		YEAR SAMPLED
		AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
Volatile Organic Compound								
1,2,3-Trichloropropane	ppb	N/A	N/A	0.099	0.048-0.13	ND	ND	2013-2014
Synthetic Organic Compound								
1,4-Dioxane-d8	percent	N/A	N/A	95.80%	86.07-103%	ND	ND	2013-2014
Metals								
Molybdenum	ppb	N/A	N/A	11.6	2.2-23	6	3-10	2013-2014
Strontium	ppb	N/A	N/A	612	250-990	310	230-380	2013-2014
Total Chromium Monitoring								
Total Chromium	ppb	N/A	N/A	1.5	ND-4.5	ND	ND	2013-2014
Oxyhalide Anion								
Chlorate	ppb	N/A	N/A	89	0.1-280	180	ND-760	2013-2014
Perfluorinated Compounds								
perfluorooctanesulfonic acid	ppb	N/A	N/A	0.091	0.034-0.111	ND	ND	2013-2014
perfluorooctanoic acid	ppb	N/A	N/A	0.1	0.035-0.037	ND	ND	2013-2014

Important drinking water definitions

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.

Primary Drinking Water Standard (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

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.

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

2014 WATER QUALITY DATA TABLE

KEY TO ABBREVIATIONS

AL	Action Level	**NTU**	Nephelometric Turbidity Unit (a measure of water cloudiness)
MCL	Maximum Contaminant Level	**pCi/L**	Picocuries per liter (a measure of radioactivity)
MCLG	Maximum Contaminant Level Goal	**PHG**	Public Health Goal
Micro ohms	A measure of conductivity (electric current in water)	**ppb**	Parts per billion
N/A	Not Applicable	**ppm**	Parts per million
ND	Non-Detected		

CONTAMINANT	UNIT	STANDARDS STATE MCL/AL	STANDARDS PHG (MCLG)	CITY OF HEMET WELL WATER AVERAGE	CITY OF HEMET WELL WATER RANGE	EMWD CONNECTIONS AVERAGE	EMWD CONNECTIONS RANGE	VIOLATION	YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINANT
PRIMARY STANDARDS - Mandatory Health Related Standards by California Department of Health Services										
Microbiological Contaminants										
Total Coliform Bacteria	Sample	MCL = More than 5% of monthly samples positive		**572 samples collected; 1 sample positive ❹**		**Not Applicable**		**NO**	2014	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria my be present.
Radioactive Contaminants										
Gross Alpha	p/Ci/L	15	0	**3.2**	0.881-5.94	**ND**	ND-3.6	**NO**	2012-2014	Erosion of natural deposits
Gross Beta	p/Ci/L	50	4	**ND**	ND	**ND**	ND-8	**NO**	2014	Decay of natural and man-made deposits
Uranium	p/Ci/L	20	0.43	**2**	0.88-2.87	**ND**	ND-1.3	**NO**	2012-2014	Erosion of natural deposits
Inorganic Contaminants										
Arsenic	ppb	10	4	**1.1**	0-2.7	**2**	ND-9	**NO**	2012-2014	Erosion of natural deposits; runoff from orchards, glass/electronics production wastes
Barium	ppb	1000	2000	**ND**	ND-100	**ND**	ND-110	**NO**	2012-2014	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride	ppm	2	1	**0.6**	0.2-1.4	**0.3**	0.1-0.5	**NO**	2012-2014	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Hexavalent Chromium	ppb	10	0.02	**1.7**	1-4.5	**0.09**	ND-0.43	**NO**	2012-2014	Discharge from elctroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, textile manufacturing acilities; erosion of natural deposits
Nitrate (NO_3) ◆	ppm	45	45	**29**	5.7-48	**2.1**	ND-8.5	****YES**** Page 4 ❶❷	2012-2014	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits. HEALTH EFFECTS: Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capactiy of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of the blood of pregnant women.
Nitrite as N	ppm	1	1	**ND**	ND-1	**0.5**	ND-1.9	**NO**	2012-2014	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.
Perchlorate ◆	ppb	6	6	**3.3**	0-6.1	**ND**	NO RANGE	**NO**	2012-2014	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water a a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts.
Selenium	ppb	50	50	**6**	0-12	**ND**	NO RANGE	**NO**	2012-2014	Discharge from petroleum, glass, metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors										
TTHMs (Total Trihalomethanes)	ppb	80	N/A	**2.8**	N/A	**N/A**	N/A	****YES**** Page 4 ❸	2015	By-product of drinking water disinfection.
Haloacetic Acids	ppb	60	N/A	**1.4**	N/A	**N/A**	N/A	****YES**** Page 4 ❸	2015	By-product of drinking water disinfection.
SECONDARY STANDARDS - Aesthectic Standards Established by California Department of Health Services										
Chloride	ppm	500	N/A	**272**	44-530	**21**	12-42	**NO**	2012-2014	Runoff/leaching from natural sources; seawater influence
Iron	ppb	300	N/A	**102**	0-120	**ND**	NO RANGE	**NO**	2012-2014	Leaching from natural sources; industrial wastes.
Manganese	ppb	50	N/A	**20**	0-23	**ND**	ND-47	**NO**	2012-2014	Leaching from natural deposits
Specific Conductance	micro ohms	1600	N/A	**1410**	770-2100	**450**	380-450	**NO**	2012-2014	Substances that form ions when in water; seawater influence.
Sulfate	ppm	500	N/A	**160**	110-260	**47**	22-70	**NO**	2012-2014	Runoff/leaching from natural deposits; industrial wastes.
Total Dissolved Solids	ppm	1000	N/A	**879**	480-1300	**260**	210-340	**NO**	2012-2014	Runoff/leaching from natural deposits.
Turbidity	units	5	N/A	**0.82**	0-0.84	**0.3**	0.1-0.4	**NO**	2012-2014	Soil runoff
METALS - As a by-product of corrosion of consumer's plumbing										
Copper	ppb	AL = 1300	300	90th percentile of 30 samples: 220 ppb		N/A	N/A	**NO**	2013	Lead and copper are regulated in a Treatment Technique under the Lead and Copper Rule. It requires systems to take water samples at the consumer's tap every three years. The federal action level (AL), which triggers water systems into taking treatment steps if exceeded in more than 10% of the tap water samples, is 1300 ppb for copper and 15 ppb for lead.
Lead	ppb	AL = 15	2	90th percentile of 30 samples: ND		N/A	N/A	**NO**	2013	
ADDITIONAL CONSTITUENTS ANALYZED										
Boron	ppm	N/A	N/A	**274**	83-350	**29**	17-49	N/A	2012-2014	
Hardness	ppm	N/A	N/A	**274**	83-350	**150**	100-200	N/A	2012-2014	
pH	pH units	N/A	N/A	**7.7**	7.5-8.2	**7.7**	7.6-7.9	N/A	2012-2014	
Potassium	ppm	N/A	N/A	**6.1**	3.1-8.5	**3.5**	2.3-4	N/A	2012-2014	
Sodium	ppm	N/A	N/A	**125**	84-270	**32**	26-46	N/A	2012-2014	

WATER QUALITY MEASUREMENTS

Trace chemicals in water are measured in parts per million (ppm) or parts per billion (ppb).

Parts per million = 1 drop in 10 gallons

Parts per billion = 1 drop in 10,000 gallons

◆ When well water contains high levels of contaminants it is blended with water from other wells to assure the water delivered to customers meets all health requirements.

City of Hemet 2014 Drinking Water Quality Report

City of Hemet Water Department
3777 Industrial Avenue
Hemet, CA 92545

Phone: 951-765-3711
Email: mosborn@cityofhemet.org
URL: www.cityofhemet.org

HAVE QUESTIONS ABOUT THIS REPORT?

CONTACT: MATT OSBORN—951-765-3109 MOSBORN@CITYOFHEMET.ORG

LET US KNOW HOW WE'RE DOING! COMPLETE A SURVEY—HTTP://CITYOFHEMET.INFO/

Public Notice of Citation for Noncompliance [2014] & Notice of Violation [2015]

Violation	Explanation	Length	Steps Taken to Correct the Violation	Health Effects Language
❶ **Failed to comply with primary drinking water standard for nitrate during the month of May 2014.**	Samples from two City wells in operation between May 1, 2014 and May 7, 2014 exceeded the MCL for nitrate of 45 ppm. The City was notified on May 7, 2014 by its contract laboratory that samples collected on April 30, 2014 and May 1, 2014 had nitrate concentrations of 47 ppm and 47 ppm, respectively.	May 1, 2014 to May 7, 2014	Both wells were shut down on May 7, 2014. The City prepared and delivered "Unsafe Water Alert" notices to 1,900 affected customers on May 8, 2014. The notice was also printed in the Press Enterprise newspaper on May 8, 2014. Nitrate samples collected throughout the distribution system on May 7 and May 8, 2014 had nitrate levels below the MCL. On May 9, 2014 the "Unsafe Water Alert" was lifted and the City notified customers that the water was once again safe to drink.	Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of the blood of pregnant women.
❷ **Failed to operate blending program not to exceed a nitrate blend point goal of 35 ppm during the month of April 2014.**	In the two week period between April 15, 2014 and April 30, 2014, the nitrate concentration at one well increased from 28 ppm to 47 ppm, which caused the nitrate concentration to exceed the blend point goal of 35 ppm.	April 15, 2014 to April 30, 2014	The well with high nitrate concentrations was removed from operation.	Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of the blood of pregnant women.
❸ **Failed to monitor for Stage 2 Disinfectants/ Disinfection Byproducts Rule contaminants during fourth quarter of 2014.**	The City failed to collect a quarterly sample in December 2014 for analysis of total trihalomethanes (TTHMs) and haloacetic acids (HAA5s). Presence of these contaminants are a by-product of drinking water disinfection.	October 1, 2014 to January 22, 2015	On January 22, 2015 the City collected samples from its designated Stage 2 DBPR sampling locations; samples were analyzed for TTHMs and HAA5s to replace the missing 2014 fourth quarter sample. Testing of samples showed our water meets the state's standards for disinfection to our customers.	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.