

CONSUMER CONFIDENCE REPORT

July 1, 2016

City of Hesperia
Water District
9700 Seventh Avenue
Hesperia, CA 92345
(760) 947-1000
www.cityofhesperia.us

Dear Customers,

The Hesperia Water District (District) is pleased to present to you the 2015 Consumer Confidence Report. You will find detailed information regarding your drinking water quality, where it comes from, and other information in compliance with State and Federal law.

This report is intended to assure citizens that their drinking water is of the highest quality, meeting all federal and state water quality standards

since implementation of the U.S. Environmental Protection Agency (USEPA) Safe Drinking Water Act was passed in 1974.

The District serves a population of nearly 92,000 people including residential and business customers and in 2015, provided 12,663 acre-feet of potable (drinkable) water to customers. This equates to over 4 billion gallons of water Citywide.

Through our trained and certified water professionals, citizens have the security of knowing their drinking water is the very best quality.

Thank you,
Hesperia Water District
Board of Directors



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District Water Sources

The City's water is extracted through 16 wells where the water is regularly tested and treated in compliance with all applicable state and federal regulations. The water is pumped directly from the Alto Subarea subbasin of the Mojave River Groundwater Basin (Basin). The Basin is recharged by rainfall and snowmelt from the local mountains as well as imported water from the State Water Project. Because the water quality of the groundwater meets state and federal standards, the wells pump directly into the City's distribution system or into storage reservoirs after disinfection.

The peak day of production for the District was on August 23, 2015, during which the District produced over 21.2 million gallons of water within a twenty-four hour period. This day was one of the hottest days of the year and all Hesperia households and businesses maintained positive water pressure.

Meeting the Water Demands of the City

Using a hydraulic computer model, staff is able to plan for needed water infrastructure improvements to ensure an uninterrupted supply of the highest quality of water possible. There are over 589 miles of pipeline that serve Hesperia's 75 square mile service area. Approximately 106 miles of these pipelines are comprised of 40 to 50 year old four, six and eight-inch steel pipes. In 2015, the Water District replaced 17,424 linear feet, or 3.3 miles, of old water lines. Using District pipeline crews and due to the economy, a goal of 5 miles a year has been established to replace the remaining miles of old steel pipeline over the next 21 years, allowing for cost savings per foot to remain consistent. In 2016, the Hesperia Water District is scheduled to replace an additional 5 miles of old steel water lines.

conserve energy by pumping and storing water at night to be used during the daytime when demand is higher.

The City's water system is carefully monitored on a continual basis for water quality and safety. Bacteriological monitoring is conducted on a weekly basis at 23 sites throughout the City to ensure that the water you receive at your tap meets stringent state and federal standards. The system operation is monitored by a remote radio system that provides operators with information on the status of our wells, booster stations and reservoirs on a 24-hour basis. In January 2016, the City began a seven year project of installing smart meters to increase operational efficiencies and customer engagement.

Hesperia's water, which is stored in 14 steel storage reservoirs with a total storage capacity of 64.5 million gallons, can be found strategically placed throughout the City. Storage not only ensures adequate supply during emergency power outages and for fire protection, it also enables the District to

The Water District uses an automated notification system that allows the City to initiate contact by telephone, text and email regarding billing notices, service interruption warnings, pipeline breaks and other types of important information. Visit the City's website at www.cityofhesperia.us to make sure your contact information is correct and to add additional contact methods.

Important Facts about 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. Currently, all water supplied to the citizens of Hesperia comes from the groundwater aquifer.

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 stormwater 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 stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by the Water District. State regulations also establish limits for contaminants in bottled water that provide the same protection for public health. The Hesperia Water District carefully safeguards the City's water supply with increased security features at each supply source. Stringent, regular testing allows for continuous monitoring and is just another way to assure the City's drinking water remains safe and of the highest quality.

Stay Informed

Board meetings are held at 6:30 pm the first and third Tuesday of each month in conjunction with the City Council meetings. Meetings are open to the public and may be viewed live via the City's website, www.cityofhesperia.us.

Noticia Importante

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

2015 State of California Health Standards

Primary & Secondary Drinking Water Standards

Primary Standards

Inorganic

Parameter	MCL	DLR	AVG	Range	Violation (Yes/No)	Units
Arsenic	10	2	0.5	ND-3.7	No	ug/L
Nitrate (as NO3)	45	2	3.1	ND-9.3	No	mg/L
Fluoride	2	1	.24	ND-.7	No	mg/L
Chromium	10	1	2.6	ND-19	No*	ug/L

*In 2014, the State Water Resources Control Board adopted a new MCL for Chromium 6. The new MCL, 10 ppb, is more stringent than the previous MCL of 50 ppb. The Hesperia Water District has always sampled for Chromium 6, but it was sampled as total chromium in conjunction with Chromium 3. As a whole, the average result in 2015 for Chromium 6 among the City’s wells was 2.6 ppb. Well 26 was over the new MCL during 2014 and has since been placed in standby status, but can be utilized in an emergency situation after approval is granted by the State. The City continues to monitor Well 26 on a monthly basis. No violations were issued to Hesperia from the State regarding this issue.

Microbiological

Parameter	MCL	DLR	AVG	Range	Violation (Yes/No)	Units
Total Coliform Bacteria	>5.0% pos.	0	ND	ND	No	% pos.

Secondary Standards

Chemical

Parameter	MCL	PHG/ MCLG	AVG	Range	Violation (Yes/No)	Units
Chloride	500	None	12.4	4.5-31	No	mg/L
Iron (Fe)	300	0.17	7.6	ND-130	No	ug/L
Specific Conductance	1,600.00	None	267.65	160-980	No	umho/ cm
Sulfate	500	None	9.32	3.0-19.0	No	mg/L
TDS	1,000.00	None	147.12	83-240	No	mg/L
MBAS	0.5	None	ND	ND	No	mg/L

Physical

PH	None	None	7.41	7.1-9.4	No	Std. Units
Color	15	None	ND	ND	No	Units
Odor	3	None	ND	ND	No	Units
Lab Turbidity	5	None	ND	ND	No	NTU

Unregulated Parameters	NF Level		AVG	Range	Violation (Yes/No)	Units
Vanadium	50	None	15.5	ND-39	No	ug/L

Mineral

Other Parameters	MCL	PHG/ MCLG	AVG	Range	Violation (Yes/No)	Units
Alkalinity	None	None	74.71	66-110	No	mg/L
Bicarbonate	None	None	78.59	52-120	No	mg/L
Calcium	None	None	17.59	ND-39	No	mg/L
Magnesium	None	None	2.43	ND-7.5	No	mg/L
Potassium	None	None	1.15	ND-1.9	No	mg/L
Sodium	None	None	20	13-42	No	mg/L
Hardness	None	None	57.54	5.2-120	No	mg/L

Distribution Detection of Lead and Copper

Lead and Copper	No. of samples	90 th percentile level detected	Sites over AL	AL	PHG
Lead (ppb)	30	Tap sampling for lead and copper will be conducted in June 2016.			
Copper (ppm)	30				

Stage 2 - Disinfection by Products Rule (DBPR)

Stage 2 DBPR was completed in 2013 which tested for Trihalomethanes (THM) and Haloacetic Acids (HAA5); the initial standard four samples were ND. Due to the ND level, the Hesperia Water District was successful in requesting in reduced monitoring from the State which dropped sampling site to two locations only. Note: All results reflect water tested from wells in the 2013 calendar year. For more information regarding water quality, call or visit: Safe Drinking Water Hotline 1-800-426-4791; www.epa.gov/safewater; www.cdph.ca.gov/certlic/drinkingwater.

Additional Information about 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 at 1-800-426-4791.

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 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 Drinking Water Hotline at 1-800-426-4791.

Key Terms

Below are terms to assist consumers in understanding 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 (USEPA).
- **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 Standard (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- **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.
- **Threshold Odor Number (TON):** Units for rating the amount of odor in a water sample.
- **PH std Units (Std. Units):** Range from 1 (acid) to 14 (basic). Neutral pH is 7.0. Drinking water ranges between 6.0 to 8.3.
- **Milligrams per liter (mg/L):** This is the same as ppm or parts per million. This is equivalent to one inch in 16 miles.
- **Micrograms per liter (ug/L):** This is the same as ppb or parts per billion. This is equivalent to one inch in 16,000 miles.
- **Non Detected (ND):** Not detectable at testing limit.
- **Picocuries per liter or trillionths of curie per liter (pCi/L):** 1pCi/L is equal to about 2.2 disintegrations per minute per liter.
- **Action Level (AL):** Lead does not have an MCL, only an action level.
- **Detection Limits (DLR):** Detection Limits for Purposes of Reporting.
- **Nephelometric Turbidity Unit (NTU):** A unit for expressing the cloudiness (turbidity) of a sample as measured by a nephelometric turbidimeter.
- **Micromhos per centimeter (umho/cm):** A measure of the conductivity of a water sample, equivalent to microsiemens per centimeter.

Special Educational Statements

Nitrate

Nitrate in drinking water at levels above 45 milligrams per liter (mg/L) is a health risk for infants six months or younger. 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. High nitrate levels may also affect the oxygen-carrying ability of the blood in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

Arsenic

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.

Lead

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. Hesperia Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When water has been sitting for several hours, the potential for lead exposure can be minimized by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking.

Infants and children who drink water containing lead in excess of the action level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink water containing lead over many years may develop kidney problems or high blood pressure. 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 or at www.epa.gov/safewater/lead.

Chromium

The most common forms of chromium that occur in natural waters in the environment are chromium-3 and chromium-6. Chromium-3 and chromium-6 occur naturally in the environment, and are present in water from the erosion of chromium deposits found in rocks and soils. Chromium-6 is also produced by industrial processes and manufacturing activities including discharges from steel and pulp mills among others. At many locations, chromium compounds have been released to the environment via leakage, poor storage, or improper disposal practices. Chromium compounds are very persistent in water as sediments. A federal law called the Emergency Planning and Community right to Know Act requires facilities in certain industries, which manufacture, process, or use significant amounts of toxic chemicals, to report annually on their releases of these chemicals. For more information on the uses and releases of chemicals in your state, contact the community right-to-know hotline at (800) 424-9346.

Source Water Assessment

A Source Water Assessment has been conducted on all 16 wells for the Hesperia Water District. The water sources are most vulnerable to the activities of septic systems with high density. For a copy of Source Water Assessment summaries, visit www.cdph.ca.gov/certlic/drinkingwater/Pages/DWSAP.aspx.

Hesperia Water District Source of Water

