

The Village of Hesperia

2016 Annual Water Quality Report

June 8th 2017

We are pleased to present to you this year's Annual Drinking Water Quality Report. The Village of Hesperia is proud of the fine drinking water it provides. This annual water quality report shows the source of our water, lists the results of our tests, and contains much important information about water and health. This report shows the results of our monitoring for the period of January 1st to December 31st, 2016.

Is our water safe to drink?

We are pleased to report that our drinking water is safe and meets all EPA and MDEQ standards for drinking water.

If you have any questions about this report and/or concerning your water utility, please contact Mike Farber at (231) 854-6205 or if you want to learn more, please attend any of the regularly scheduled village meetings. The meetings are held every second Monday of the month at 7:30 pm. and are held at the Village Hall, 33 E. Michigan Avenue, Hesperia.

Overview

The Village of Hesperia Water Utility pumped a total of approximately 26.800 million gallons of water in 2016 with a daily average of approximately 0.073 million gallons per day.

Water Sources

Our water source consists of three (3) wells. Two are located at 26 S. Division Street and both of these wells are ten (10) inches in diameter and are set at a depth of 135 feet. The third well is located at 374 S. Division Street and has a diameter of four (4) inches with a depth of 95 feet and 11 inches. At the present time our water is not treated in any way.

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.

In 2014, the DEQ performed a source water assessment on our water supply. It was found that wells number 1 and 2 have moderate susceptibility to contamination while number 3 has a moderately high susceptibility to contamination. For a copy of this report or more information, please contact the Village Clerk Peggy Miller at (231) 854-6205.

Contaminates that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic system, agricultural livestock operations and wildlife.
- Inorganic contaminants such as salts and metals, which can be naturally occurring or results from urban storm water run-off, 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 storm water run-off and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production and can also come from gas station, urban storm water run-off 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, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water system. Food and Drug Administration regulation establishes limits for contaminants in bottled water which must provide the same protection for public health.

In this table you will find many terms and abbreviations you may not be familiar with. To help you better understand these terms, we've provided the following definitions:

Non-Detects (ND) – laboratory analysis indicates that the contaminant is not present.

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.

Part Per Billion (ppb) or Micrograms Liter – one part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.

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

Well #1 – 2 and Well #3

Inorganic Contaminants	Analyst Date	MCL	MCLG	Detected Level	Violation Y/N	Typical Source of Contaminant
Fluoride (mg/l)	09/06/16	4	4	0.37-0.40	N	Erosion of natural deposits
Nitrate (mg/l)	09/06/16	10	10	<0.10-1.13	N	Runoff from fertilizer use Erosion of natural deposits
Nitrite (mg/l)	09/06/16	1	1	<0.10		
Chloride (mg/l)	09/06/16	N/A	N/A	30.7-74.05	N	Erosion of natural deposits
Hardness (mg/l)	09/06/16	N/A	N/A	267-299	N	Erosion of natural deposits
Iron (mg/l)	09/06/16	N/A	N/A	0.109-0.543	N	Erosion of natural deposits
Sodium (mg/l)	09/06/16	N/A	N/A	18.3-46.1	N	Erosion of natural deposits
Sulfate (mg/l)	09/06/16	N/A	N/A	25.2-45.4	N	Erosion of natural deposits
Barium (mg/l)	09/15/09	2	N/A	0.06	N	Erosion of natural deposits

If you would like more information about these contaminants, feel free to contact us Monday to Friday from 9 A.M. to 5 P.M. at the Department of Public Works (231) 854-1821.

What does all this mean?

We have, through our monitoring and testing, found that some contaminants have been detected. The EPA has determined that your water is safe at these levels.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All drinking water, including bottled water, may reasonably be expected to contain at least a small amount of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a "one in a million" chance of having the described health effect.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Treatment Technique (TT) – A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level (MCL)– The “Maximum Allowed” (MCL) is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) – is the level of a contaminant in drinking water below, which there are no known or expected risks to health. MCLGs allow for a margin of safety.

N/A – Information is not available.

Health Effects for Lead and Copper

Lead: Infants and children who drink water-containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning disabilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

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. The Village of Hesperia 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 Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Copper: Copper is an essential nutrient, but some people who drink water-containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water-containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Lead: Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplant, 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/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

The Village of Hesperia is not required to test for some contaminants every year. These test results are the newest results available.

**Lead and Copper
Distribution
Monitoring
Results**

Contaminant	Date Tested	Number of Sites Tested	90 th Percentile	Number of Sites over Action Level	Action Level/ Units of Measurement	Likely Source of Contamination
Lead (ppm)	09/04/14	20	.006	0	.015 (ppm)	Corrosion of household plumbing system
Copper (ppm)	09/04/14	20	.13	0	1.3 (ppm)	Corrosion of household plumbing system