

Annual Drinking Water Quality Report 2016

The Village of Palm Springs

The Village of Palm Springs is very pleased to provide you with this year's Annual Drinking Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water.

The Village of Palm Springs utilizes groundwater wells for our water source. The wells are drawn from the surficial aquifer in eastern Palm Beach County. This groundwater source is adequately protected by the Palm Beach County Wellfield Protection Ordinance, which the Village of Palm Springs strictly adheres to. The Village of Palm Springs Water Treatment Plant pre-treats the raw water with a magnetic ion exchange system (MIEX) for organic removal prior to lime softening to remove hardness. It is then disinfected using chloramines (chlorine and ammonia compound) and filtered prior to distribution. As you can see by the table, the Village of Palm Springs water system had no violations. We are proud that your drinking water meets or exceeds all Federal and State requirements.

The Village of Palm Springs routinely monitors for contaminants in your drinking water according to Federal and State laws. The table on the following page shows the results of our monitoring for the period, of January 1st to December 31st 2016. In 2014, The Village of Palm Springs performed required triennial monitoring which included inorganic and organic chemical contaminants, of which none were detected.

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. We have learned through our monitoring and testing that some constituents have been detected.

Contaminants that may be present in source water include:

(A) 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. The Village of Palm Springs 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 www.epa.gov/safewater/lead.

(B) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

(C) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

(D) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

(E) 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 storm water runoff, and septic systems.

(F) 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 systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

In 2016 the Florida Department of Environmental Protection performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are five potential sources of contamination identified for this system with a low to moderate susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp or they can be obtained from (561) 965-4022.

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 land or underground it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All 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 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 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. 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).

In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected in rate structure adjustments. We at the Village of Palm Springs work around the clock to provide top quality water to every tap. 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. If you have any questions about this report or concerning your water utility, please contact Mr. Donald Ray, Water Plant Superintendent at (561) 965-4022. If you want to learn more, please attend any of our regularly scheduled Council Meetings, which are held at Village Hall. Please check our website www.vpsfl.org for dates and times.

The Environmental Protection Agency (EPA) requires monitoring of over 80 drinking water contaminants. Those contaminants listed in the table below are the only contaminants detected in your drinking water.

TEST RESULTS TABLE

Contaminant and Unit of Measure	Dates of Sampling (Mo./Yr.)	AL Exceeded (Y/N)	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
<i>Lead and Copper (Tap Water)</i>							
Copper (ppm) (Tap Water)	07/14-08/14	N	0.009	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead (ppb) (Tap Water)	07/14-08/14	N	1.53	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits.
Contaminant and Unit of Measure	Dates of Sampling (Mo./Yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
<i>Inorganic Contaminants</i>							
Nitrate (as Nitrogen) (ppm)	2/16	N	0.065	0.050-0.065	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits.
Nitrite (as Nitrogen) (ppm)	2/16	N	0.025	0.025	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits.
Sodium (ppm)	2/14	N	37.7	31.2-37.7	N/A	160	Salt water intrusion, leaching from soil.
Barium (ppm)	2/14	N	0.0049	0.00378 - 0.00491	2	2	Erosion of Natural deposits; discharge of drilling wastes; discharge of metal refineries.

Total Coliform Bacteria: The Highest Monthly Number is the highest monthly number of positive samples for systems collecting fewer than 40 samples per month. The Highest Monthly Percentage is the highest monthly percentage of positive samples for systems collecting at least 40 samples per month.

An **acute** violation of the Total Coliform Rule (TCR) exists when:

- any system collects a fecal-positive or *E. Coli*-positive sample that is followed by any positive repeat sample; **or**
- if any total coliform-positive sample is followed by a repeat sample that tests positive for either fecal coliform or *E. Coli*.

A **non-acute** violation of the TCR exists when:

- a system which collects at least 40 samples per month has a presence of total coliform in more than 5.0 percent of its monthly samples; **or**
- a system which collects fewer than 40 samples per month has more than 1 sample test positive for total coliform

Possible Scenarios:

- A fecal-positive or *E. Coli*-positive followed by proper repeat sampling absent of any contamination does not generate a violation as long as the TCR has not been violated. For a system taking over 40 samples per month, this result is then totaled with any total coliform positive compliance results for the month to determine percentage compliance with the TCR
- A system that collects more than 40 samples per month and has one positive sample followed by two positive repeat samples, with at least one of those being either fecal-positive or *E.coli*-positive would have an MCL violation (acute), even if the total number of positive samples is less than 5% of the total for the month.

Microbiological Contaminants

Contaminant and Unit of Measurement	Dates of sampling (Mo./ Yr.)	MCL Violation Y/N	Highest Monthly Percentage/ Number	MCLG	MCL /TT	Likely Source of Contamination
1a. Total Coliform Bacteria (positive samples until March 31, 2016)	01/16-03/16	N	0	0	Presence of coliform bacteria in >1 sample collected during a month.	Naturally present in the environment
1b. Total Coliform Bacteria (beginning April 1, 2016)	04/16-12/16	N	N/A	N/A	TT	Naturally present in the environment

Stage 2 Disinfectant and Disinfection By-Product

For bromate, chloramines, or chlorine, the level detected is the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. The range of results is the range of results of all the individual samples collected during the past year.

For haloacetic acids or TTHM, the level detected is the highest RAA, computed quarterly, of quarterly averages of all samples collected if the system is monitoring quarterly or is the average of all samples taken during the year if the system monitors less frequently than quarterly. Range of Results is the range of individual sample results (lowest to highest) for all monitoring locations.

Contaminant and Unit of Measurement	Dates of sampling (Mo./ Yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
HAA5 (ppb) (Haloacetic Acids)	01/16-12/16	N	34.625	22.4-44.5	N/A	60	By-product of drinking water chlorination.
TTHM (ppb) (Total Trihalomethanes)	01/16-12/16	N	45.25	19.1-65.9	N/A	80	By-product of drinking water chlorination.

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

Parts per million (ppm) or Milligrams per liter (mg/l) – one part by weight of analyte to 1 million parts by weight of the water sample.

Parts per billion (ppb) or Micrograms per liter (ug/l) - one part by weight of analyte to 1 billion parts by weight of the water sample.

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

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

Maximum Contaminant Level or MCL- The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal or MCLG- The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

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

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

Maximum Contaminant Level Goal - The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level or 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 or 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.

Initial Distribution System Evaluation (IDSE): An important part of the Stage 2 Disinfection By-Products Rule (DBPR). The IDSE is a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.

Locational Running Annual Average (LRAA): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.