

# 2016 Annual Drinking Water Quality Report

## City of Zephyrhills

### PWS # 6512020

We are 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. Our water source is ground water drawn from wells. The wells draw from the Floridan Aquifer.

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 10 unique, potential sources of contamination, 9 of which are of a low susceptibility level and 1 which is of a high susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at [www.dep.state.fl.us/swapp](http://www.dep.state.fl.us/swapp) or they can be obtained from the City of Zephyrhills Utilities Department. Our Public Water System ID number is 6512020.

Our drinking water is obtained from ground water sources. The water is first chlorinated for disinfection purposes and then treated with a corrosion control inhibitor to prevent excessive corrosion throughout our water system.

We are pleased to report that our drinking water meets all federal and state requirements.

If you have any questions about this report or concerning your water, please contact John Bostic III, Utilities Director, at 39825 Alston Ave., Zephyrhills, FL, 33542 or phone him at 813-780-0008.

We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled council meetings. They are held each month on the second and fourth Mondays at 6:00 pm at City Hall.

The City of Zephyrhills routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2016. Data obtained before January 1, 2016, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

In the tables of this report, you may find unfamiliar terms and abbreviations. To help you better understand these terms, we have provided the following definitions:

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

**Initial Distribution System Evaluation (IDSE):** An important part of the Stage 2 Disinfection Byproducts 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.

**Level 1 Assessment:** A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**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.

**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.

“ND” means not detected and indicates that the substance was not found by laboratory analysis.

Parts per billion (ppb) or Micrograms per liter ( $\mu\text{g/l}$ ) – one part by weight of analyte to 1 billion parts by weight of the water sample.

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

Picocurie per liter (pCi/L) - measure of the radioactivity in water.

### Water Quality Testing Results: Inorganics

**Nitrates:** As a precaution we always notify physicians and health care providers in our area if there is ever a higher than normal level of nitrates in the water supply.

While your drinking water meets USEPA's standard for arsenic, it does contain low levels of arsenic. USEPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. USEPA 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:** 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.

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic (ppb)	09/14	N	0.9	ND - 0.9	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Antimony (ppb)	09/14	N	0.7	ND - 0.7	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Barium (ppm)	09/14	N	0.011	0.0021 - 0.011	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cadmium (ppb)	09/14	N	0.5	ND - 0.5	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium (ppb)	09/14	N	1.4	ND - 1.4	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride (ppm)	09/14	N	0.17	ND - 0.17	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum level between 0.7 ppm.
Lead (point of entry) (ppb)	09/14	N	1.2	ND - 1.2	N/A	15	Residue from man-made pollution such as auto emissions and paint; lead-pipe, casings, and solder
Mercury (inorganic) (ppb)	09/14	N	0.5	ND - 0.5	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nickel (ppb)	09/14	N	3.5	ND - 3.5	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil
Nitrate (as Nitrogen) (ppm)	7/16-8/16	N	3.7	0.26-3.7	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	09/14	N	20	6.2 - 20	N/A	160	Salt water intrusion, leaching from soil
Thallium (ppb)	09/14	N	0.6	ND - 0.6	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass and drug factories

### Water Quality Testing Results: Lead and Copper (Tap Water)

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 City of Zephyrhills 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>.

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	AL Violation Y/N	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	08/14	N	.47	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	08/14	N	1.2	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

### Water Quality Testing Results: Disinfectants and Disinfection By-Products

For bromate, chloramines, or chlorine, the level detected is the the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. 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, including Initial Distribution System Evaluation (IDSE) results as well as Stage 1 compliance results.

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG or MRDL	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)	01/16 – 12/16	N	0.97	0.6-1.7	MRDL G = 4	MRDL = 4.0	Water additive used to control microbes

### Stage 2 Disinfectants and Disinfection By-Products

TTHM [Total Trihalomethanes] (ppb)	08/16	N	14.92	13.83-14.92	NA	MCL = 80	By-product of drinking water disinfection
HAA5 (Haloacetic Acids (five) (ppb)	08/16	N	3.75	0.85-3.75	NA	MCL = 60	By-product of drinking water disinfection

### Microbiological Contaminants

Contaminant and unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Highest Monthly Percentage/Number	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (positive samples)	12/16	Y	5	0	For systems collecting fewer than 40 samples per month: presence of coliform bacteria in >1 sample collected during a month.	Naturally present in the environment

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the past year, we were required to conduct one (1) Level 1 assessment. One (1) Level 1 assessment was completed. In addition, we were required to take zero (0) corrective actions.

Unregulated Contaminants				
Contaminant and unit of Measurement	Dates of sampling (mo./yr.)	Level Detected	Range	Likely Source of Contamination
Combined Perfluorooctane Sulfonate (PFOS) / Perfluorooctanoic Acid (PFOA) (ppb)	06/16,08/16	0.14	0.05-0.14	Man-made material used in a variety of commercial products since the 1950s until the early 2000s, including stain and water repellents and fire suppression foams.

In 2014, the City of Zephyrhills monitored for Unregulated Contaminants (UCs) as part of a study to help the U.S. Environmental Protection Agency (EPA) to determine the occurrence in drinking water of UCs and whether or not these contaminants need to be regulated. On May 19, 2016, EPA issued a new combined health advisory limit (HAL) for PFOA and PFOS. The HAL was set to 0.070 parts per billion. In June of 2016 the City took additional follow-up samples from an affected well which came back above the new HAL. After the results from these samples were received, the affected well was taken out of service. In August of 2016, the City again took follow-up samples from the affected well, that was isolated from the distribution system, to see where the source of detection was coming from. The public health was not endangered. These sample results are available upon request. If you would like more information on the EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

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

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- (D) 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, and septic systems.
- (E) 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 EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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 1-800-426-4791.

Thank you for allowing us to continue providing your family with clean, quality water this year. 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 as rate structure adjustments. Thank you for understanding.

The employees of the City of Zephyrhills Utilities Department work very hard to provide quality water to every customer. We ask that all our customers help us protect and conserve our precious water source so that we will continue our proud heritage of being the **"City of Pure Water"**.