

Table Key

ppm - parts per million or milligrams per liter - one part by weight of analyte to 1 million parts by weight of the water sample.

ppb - parts per billion or micrograms per liter - one part by weight of analyte to 1 billion parts by weight of the water sample.

nge - No goal established

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

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

MCLG - Maximum Contaminant Level Goal - 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.

MRDL - Maximum Residual Disinfectant Level - 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.

MRDLG - Maximum Residual Disinfectant Level Goal - 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.

Range of Results - The lowest and highest detected levels of a substance.

NA - Not Applicable

ND - not detected - indicates that the substance was not found by laboratory analysis.

VERO BEACH WATER QUALITY REPORT

Inorganic Contaminants							
Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Sources of Contaminants
Fluoride (ppm)	8/14	N	0.701	N/A	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at the optimum level of 0.7 ppm.
Mercury (inorganic) (ppb)	8/14	N	0.0395	N/A	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland.
Nitrate (ppm)	4/16	N	0.316	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Sodium (ppm)	8/14	N	42.8	N/A	nge	160	Leaching from soil, saltwater intrusion.

Stage 1 Disinfectant/Disinfection By-Products							
Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Sources of Contaminants
Chloramines/Chlorine (ppm)	1/16-12/16	N	3.04 annual average	0.2-4.2	MRDLG =4	MRDL =4.0	Water additive used to control microbes.

Stage 2 Disinfectant/Disinfection By-Products							
Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Sources of Contaminants
Total Trihalomethanes (ppb)	2/16, 5/16, 8/16, 11/16	N	63.1	38.4-81.6	N/A	80	By-product of drinking water disinfection
Haloacetic Acids -HAA5 (ppb)	2/16, 5/16, 8/16, 11/16	N	30.9	21.1-42.6	N/A	60	By-product of drinking water disinfection

Lead and Copper (Tap Water)							
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	Likely Sources of Contaminants
Lead (ppb)	7/15-9/15	N	ND	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits.
Copper (ppm)	7/15-9/15	N	0.227	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Water & Sewer Department



2017 Water Quality Report

State Water System ID No. 3310206

Administrative Office: 772-978-5220  
Customer Service: 772-978-5100

We are pleased to present to you this year's Water Quality Report. This report is designed to inform you about the quality of the water we deliver to you. Our goal is to provide you with a dependable supply of high quality drinking water every day. We want you to be assured that this goal continues to be met.

The City of Vero Beach water system routinely monitors for contaminants in your drinking water according to federal and state laws, regulations and rules. The data presented in our Water Quality Summary shows the results of our monitoring for the period of January 1 to December 31, 2016 or the most recent testing done in accordance with state and federal regulations. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. As a result, some of the data, though representative, are more than one year old.

### **Where Your Water Comes From and How It Is Treated**

The City of Vero Beach obtains its water from 25 Surficial Aquifer wells that are 80 - 140 feet deep and 5 Floridan Aquifer wells that are 570 - 680 feet deep. Ten of the Surficial Aquifer wells are part of a groundwater remediation program. Water from these wells is treated by an aeration process that removes contaminants. This water is then blended with water from the remaining Surficial Aquifer wells, and sent to our lime softening water treatment plant. There the water is treated to reduce color and hardness, and then coagulated and filtered to remove any suspended materials. The water is then disinfected using chloramines, a long-lasting disinfectant that reduces the potential for forming disinfection byproducts.

Two of the Floridan Aquifer wells serve as auxiliary sources for the lime softening treatment plant. Water from the other Floridan Aquifer wells is treated by reverse osmosis, a process that removes salts and hardness causing minerals. The water from this

process is also disinfected with chloramines. All drinking water supplied by the City is also fluoridated for dental health purposes.

The final stage in our treatment process is blending the water from the lime softening process and the reverse osmosis process to produce the drinking water that is sent to the homes and businesses that we serve.

### **General Drinking Water Quality Information**

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, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

*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.

*Pesticides and herbicides*, which may come from a variety of sources such as urban stormwater runoff, agriculture, 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, 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 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 (1-800-426-4791).

### **Important Health Information**

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 systems 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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

### **Source Water Assessment**

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 eleven potential sources of contamination identified for this system with low to moderate susceptibility levels. 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).

### **Lead and Drinking 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 Vero Beach 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>.

We're proud that your drinking water is of excellent quality. If you have any questions concerning your water utility, please contact us at 772-978-5220. Or, if you wish, you may contact the Utilities Commission or attend one of their meetings. Information regarding the Utilities Commission can be obtained by calling the City Clerk's Office at 772-978-4700. If you have any questions concerning billing or availability of service, please call our Customer Service Department at 772-978-5100.