2017 Water Quality Report for Tropical Breeze Estates Water System

INTRODUCTION

We are pleased to present you with this year's Annual Drinking Water Quality Report. This report is designed to keep you informed about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water source is two ground water wells that draw water from the surficial aquifer. It is processed through softeners, Granular Activated Carbon filtration units, then chlorinated for the purpose of disinfecting the water.

In 2017, the Department of Environmental Protection performed a Source Water Assessment on our system. The assessment was conducted to provide information about potential sources of contamination in the vicinity of our wells. A search of the data sources indicated no potential sources of contamination. The assessment results are available on the FDEP Source Water Assessment and Protection website at *www.dep.state.fl.us/swapp*.

If you have any questions about this report or concerning your water utility, or want to obtain a copy of this report, please contact Carl Helstrom at (561) 732-4878. We want our valued customers to be informed about their water quality. If you want to learn more, please attend any of our regularly scheduled meetings held at the Recreation Hall on the third Thursday of the month (November to April).

Tropical Breeze Estates 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 1st to December 31st, 2017. Data obtained before January 1, 2017, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations. The contaminants in the table are not the only ones that we monitor, but those listed are the only contaminants detected.

DEFINITIONS

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

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.

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

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 (µg/l) – one part by weight of analyte to 1 billion parts by weight of the water sample.

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

"NA" means not applicable.

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

WATER QUALITY TEST RESULTS

Inorganic Contaminants							
Contaminant and Unit of Measurement	**Dates of sampling (mo./yr.)**	**MCL**	**Level Detected**	**Range of Results**	**MCLG**	**MCL**	**Likely Source of Contamination**
Barium (ppm)	11/15	N	0.033	NA	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	12/15	N	0.25	NA	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum level of 0.7 ppm
Nitrate, as Nitrogen (ppm)	10/17	N	0.075 I	NA	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	11/15	N	110	NA	NA	160	Salt water intrusion, leaching from soil

Stage 1 Disinfectants and Disinfection By-Products							
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.							
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 Source of Contamination**
Chlorine (ppm)	01/17 to 12/17	N	1.16	0.23 – 3.00	MRDLG=4	MRDL=4.0	Water additive used to control microbes
Stage 2 Disinfectants and Disinfection By-Products							
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.							
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 Source of Contamination**
Haloacetic Acids (five) (HAA5) (ppb)	Quarterly, 2017	N	28.095	ND – 61.0	NA	MCL=60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	Quarterly, 2017	N	68.045	ND – 118.7	NA	MCL=80	By-product of drinking water disinfection

Contaminant and Unit of Measurement	**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**
Lead and Copper (Tap Water)							
Copper (tap water) (ppm)	08/16	N	0.077	None above the action level	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	08/16	N	1.1	None above the action level	0	15	Corrosion of household plumbing systems, erosion of natural deposits

Qualifier Codes

I = Between lab detection limit and lab practical quantitation limit

ADDITIONAL INFORMATION

Haloacetic acids (five) (HAA5): Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

TTHMs [Total Trihalomethanes]: Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

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. Tropical Breeze Estates Water System 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 drinking 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.

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. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

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.

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 (800-426-4791).

CONCLUSION

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. Our water system was in violation of federal and state water quality standards for Total Trihalomethanes in the second quarter of 2017. However, the system did not incur an MCL violation, because the annual average results were below the MCL. With the help of the Florida Rural Water Association, we changed out the three year old carbon in the carbon filters in 2016. Carbon reduces the precursors that form TTHMs and HAA5s when mixed with Chlorine. Tropical Breeze Estates also added additional flush points in the distribution system to deal with this issue. As a result, we are pleased to report to you that Tropical Breeze Estates greatly improved the levels of the Disinfection Byproducts in our system for the last two years.

We have learned through our monitoring and testing that some constituents have been detected. We make every effort to continually improve the water treatment process and protect our water resources. We at Topical Breeze Estates would like you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. 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.