Town of Lake Clarke Shores

1701 Barbados Road • Lake Clarke Shores FL 33406

Phone: 561-964-1515 • Fax: 561-964-0685

2016 Annual Drinking Water Quality Report

Seminole Manor Utility System

The following is important information about the water quality of your area, please call (561) 642-7870 to request a translated report or assistance with the language in the report.

La siguiente es información importante sobre la calidad del agua de su área, llame al (561) 642-7870 para solicitar un informe traducido o asistencia con el idioma en el informe.

Swivan enfòmasyon enpòtan sou dlo kalite zòn ou la, tanpri, rele (561) 642-7870 pou mande yon rapò ke oubyen asistans ak lang nan rapò a.

INTRODUCTION:

We are very pleased to provide you with this year's Annual Drinking Water Quality Report. This report is in compliance with requirements of the latest amendments to the Federal Safe Drinking Water Act regarding consumer confidence, and it is designed to assure that our water consumers are better informed about the quality water and services that we provide. 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 Town of Lake Clarke Shores owns and operates the Seminole Manor Water Utility System. The Seminole Manor Utility System receives its water supply from the Palm Beach County Water Utilities and distributes it through a system of piping.

The Palm Beach County Water Utilities Department raw water source is supplied from the Surficial Aquifer and the Biscayne Aquifer. The treatment process utilizes lime softening and ozone treatment, followed by disinfection, to provide drinking water for the surrounding area.

Palm Beach County's 2016 Annual Water Quality Report Data is included with this report as reported by Palm Beach County Water Utilities Department to the Town of Lake Clarke Shores.

In 2016 the Department of Environmental Protection preformed a Source Water Assessment on Palm Beach County's Water Utilities System. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at the following link: https://fldep.dep.state.fl.us/swapp/DisplayPWS.asp?pws_id=4504393.

Our water is obtained from ground water sources and is chlorinated for disinfection purposes.

If you have any questions about this report or concerning your water utility, please contact the Lake Clarke Shores Water Utility Department at (561) 642-7870. We want our customers to be informed about their water utilities, if you want to learn more, please attend any of our regularly scheduled Town Council meetings.

Town Council Meetings are held on the second Tuesday of each month at Town Hall, 1701 Barbados Road, Lake Clarke Shores, FL beginning at 6:30 PM. You can obtain additional information from the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

The Lake Clarke Shores Water Utilities 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 to follow below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

DEFINITIONS

Not-Detected (ND) - "ND" means not detected and indicates that the substance was not found by laboratory analysis.

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 - 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.

90^{th} percentile value reported – If the 90^{th} percentile value does not exceed the AL, the system is in compliance.

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

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

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.

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.

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.

Level 2 Assessment – A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

TEST RESULTS

Microbiological Contaminants

*Data from analysis of test results for Seminole Manor

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Highest Monthly Number	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (positive samples)	01/16 – 03/16	N	0	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

Inorganic Contaminants

*Data from Palm Beach County Water Utilities 2016 Annual Drinking Water Quality Report

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
Barium (ppm)	04/16	N	0.0058	ND – 0.0058	2	2 ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride (ppm)	04/16	N	0.72	0.084 – 0.72	4	4 ppm	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum level 0.7 ppm.
Nitrate (as Nitrogen) (ppm)	04/16	N	0.062	ND – 0.062	10	10 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Nitrite (as Nitrogen) (ppm)	04/16	N	0.025	ND – 0.025	1	1 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Sodium (ppm)	04/16	N	53	17.4 - 53	N/A	160 ppm	Salt water intrusion, leaching from soil

Stage 1 Disinfectants and Disinfection By-Products

*Data from analysis of test results for Seminole Manor

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 and Chloramines (ppm)	1/16-12/16	N	2.83	0.60-4.60	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes

Stage 2 Disinfectants and Disinfection By-Products

*Data from analysis of annual test results for Seminole Manor

For chloramines, or chlorine, the level detected is the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. For halo-acetic 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 2 compliance results.

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
Total Trihalomethanes (TTHM) (ppb)	08/16	N	42.2	42.2	N/A	80	By-product of drinking water disinfection.
Haloacetic Acids (HAA5) (ppb)	08/16	N	19.6	19.6	N/A	60	By-product of drinking water disinfection.

Lead and Copper (Tap Water)

*Data from analysis of Lead and Copper test results for Seminole Manor

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
Copper (tap water) (ppm)	08/16	N	0.088	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead (tap water) (ppb)	08/16	N	1.5	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

ADDITIONAL INFORMATION

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 Town of Lake Clarke Shores 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.

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 (800-426-4791) or at http://www.epa.gov/safewater/lead

Please DO NOT FLUSH your unused/unwanted medications down toilets or sink drains. For more information, please go to http://www.dep.state.fl.us/waste/categories/medications/pages/disposal.htm.

CONCLUSION

We at The Town of Lake Clarke Shores Utilities work around the clock to provide top quality water to every tap. We ask that our customers help protect our water sources, which are the heart of our community, our way of life and our children's future.

The Town of Lake Clarke Shores would like you to understand the efforts we make to continually improve our Water Utility Department. We are committed to insuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call any of the numbers listed.

PALM BEACH COUNTY WATER UTILITIES DEPARTMENT
WTP 2, 3, 8 and 9
CONSUMER CONFIDENCE REPORT
2016 DATA

2016 DATA TO REPORT ON CCR

Radioactive Contaminants						
Contaminant	Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation	Level Detected	Reported Ranges	MCL
Radium 226	pCi/L	5/16	N	0.485	ND-0.485	5 pCi/L
Radium 228	pCi/L	5/16	N	0.904	ND-0.904	5 pCi/L

Inorganic Contaminants						
Contaminant	Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation	Level Detected	Reported Ranges	MCL
Barium	ppm	5/16	N	0.0058	ND-0.0058	2 ppm
Fluoride	ppm	5/16	N	0.72	0.084-0.72	4 ppm
Nitrate, as Nitrogen	ppm	5/16	N	0.062	ND-0.062	10 ppm
Nitrite, as Nitrogen	ppm	5/16	N	0.025	ND-0.025 I	1 ppm
Nitrate + Nitrite	ppm	5/16	N	0.062	0.032 I-0.062	10 ppm
Sodium	ppm	5/16	N	53	17.4-53	160 ppm

Stage 1 Disinfectants and Disinfection By-Products						
Contaminant	Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation	Level Detected*	Reported Ranges	MCL
Chlorine and Chloramines	ppm	1/16 to 12/16	N	3.16	0.00-6.30[1]	4 ppm

Stage 2 Disinfectants and Disinfection By-Products						
Contaminant	Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation	Level Detected**	Reported Ranges	MCL
Total Trihalomethanes (TTHM)	ppb	1/16 to 12/16	N	66.80	16.6-90.9	80 ppb
Haloacetic Acids (HAA5)	ppb	1/16 to 12/16	N	46.00	7.5-55.3	60 ppb

Synthetic Organic Contaminants						
Contaminant	Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation	Level Detected	Reported Ranges	MCL
Di(2-ethylhexyl)phthalate	ppb	5/16	N	1.10	ND-1.1 I,J	6 ppb

Volatile Organic Contaminants						
Contaminant	Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation	Level Detected	Reported Ranges	MCL
Chlorobenzene	ppb	5/16	N	0.59	ND-0.59	100 ppb

Lead & Copper (Tap Water)						
Contaminant	Unit of Measurement	Dates of Sampling (mo/yr)	AL Exceeded	90th Percentile Result	Number of Sampling Sites exceeding AL	Action Level (AL)
Lead at the Tap	ppb	8/14	N	2.97 ppb	3	15 ppb
Copper at the Tap	ppm	8/14	N	0.217 ppm	0	1.3 ppm

Qualifier Codes
U = Undetected
I = Between lab detection limit and lab practical quantitation limit
J = Estimated Value

Notes:
[1] The highest level detected for chloramine represents 1 out of 7351 samples.

*The results in the column indicating "Highest Level Detected" for Chlorine and Chloramines are 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.

**The results in the column indicating "Highest Level Detected" for total trihalomethanes and HAA5 are the highest locational running annual average (LRAA), computed quarterly, of quarterly averages of all samples collected. The range of results are the range of individual sample results (lowest to highest) for all monitoring locations.