2020 WATER QUALITY REPORT
CITY OF MARGATE

ARE YOU DOING YOUR PART?

The average water use in a Margate home is 5480 gallons of treated water per month. To reduce your use, look for WaterSense and Energy Star labels when replacing fixtures and appliances. To help you save, the City is offering FREE water saving devices and rebates. See page 4 for details.

Water Conservation Poster Contest City Winner:
Jahnia Jacobs, Div 4, 6th Grade, Margate Middle School

WATER SOURCE & OVERVIEW OF TREATMENT

The sole source of drinking water supply for the City of Margate Water Treatment Plant is the Biscayne Aquifer.

The City of Margate owns and operates two 13.5 million gallon per-day water treatment clarifiers located at 980 NW 66th Ave., in the City of Margate. Well water enters the treatment plant for processing. The treatment process includes aeration, lime softening to reduce hardness, followed by multi-media filtration, fluoride injection, and chloramine disinfection. Polymer is added at the softening units as a settling aid and orthophosphate is added to filters as a filtering aid. The treated water is pumped to three above-ground storage tanks with a total capacity of 5.9 million gallons, and subsequently, into your homes and businesses through a network of pipes. A backup generator assures an uninterrupted supply of water even during power outages.

Dept. of Environmental & Engineering Services (DEES)
901 N.W. 66th Avenue, Ste. A, Margate, FL 33063

Water Billing: (954) 884-3666 / DEES: (954) 972-0828
After Hours Service Calls: (954) 605-9812

Web: margatefl.com/dees / E-Mail: dees@margatefl.com
Fax: (954) 978-7349

Office Hours: Monday - Friday: 8 a.m. - 6 p.m. / Operations: 24/7

CITY OF MARGATE
Together We Make It Great

DEAR VALUED UTILITY CUSTOMER

The City of Margate Department of Environmental and Engineering Services (DEES) is pleased to provide you with the 2020 Water Quality Report, which summarizes our water quality testing results and provides our customers with an overview of our water supply source and treatment; our source water assessment and protection program; our water conservation programs; and general health information related to drinking water, including facts on lead. The mission of DEES staff is to provide you a safe and reliable drinking water supply. As you will see from the results provided in this report, **our drinking water, once again, meets or exceeds all Federal and State regulatory requirements.**

The City continues to aggressively pursue upgrades, as part of our ongoing Capital Improvement Program (CIP), to facilitate treatment and supply of safe potable water to residences and businesses. In 2020, the Department completed construction on the replacement of 12,060 linear feet of water mains. Design is in progress for replacing an additional 11,500 linear feet of water mains, and programming is in progress for replacing another 14,000 linear feet of water mains as we update our hydraulic model and evaluate pipe conditions and locations, and frequency of line breaks. We also rehabilitated three of our raw water wells and raised the wellheads to 12" above the 100-year flood elevation at the same time.

Other significant capital improvements to the water system include continued rehabilitation of the City's 12 raw water wells, continued replacement of water meters, conversion of these meters to automatic meter reading, and continued repair and replacement of water plant treatment equipment.

The City continues to encourage all residents and businesses to conserve water and take advantage of the savings offered by our tiered water rates - lower rates for using less water – and by our water conservation program incentives, which provide some significant rebates and savings. In 2020, the City provided 87 toilet replacement rebates to City residents, and the City provided a total of 307 water-saving devices at no cost to City residents and businesses. (Additional information for this program is provided on page 4). After a successful pilot with Broward County's NatureScape Irrigation Service (NIS) for a residential irrigation system audit and rebate program, the City opted to continue this program in 2020 and beyond. Ten audits were completed, and four rebates were issued through the NIS in 2020. For details on the NIS program, visit www.broward.org/irrigationrebate.

If you have questions about this report, please call **(954) 972-0828** or visit **www.margatefl.com/dees**. For water billing questions, please call **(954) 884-3666**.

Sincerely,
Curt Keyser, PE, Director of the Department of Environmental & Engineering Services (DEES)

SOURCE WATER ASSESSMENT & PROTECTION PROGRAM (SWAPP)

In 2020, 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 35 potential sources of contamination identified for our system with low to moderate susceptibility levels. None of the contaminants from the sources identified have been detected in our source water samples. 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 our office by calling **(954) 972-0828** or emailing **dees@margatefl.com**.

The sources of drinking water (both tap 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:

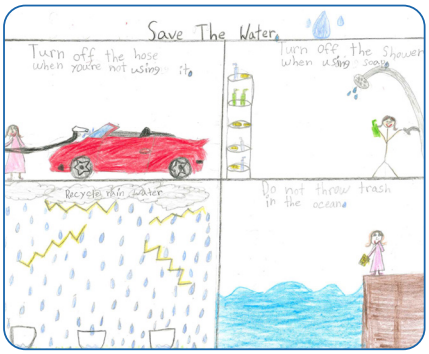
A. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
B. In organic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
C. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
D. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water 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 (800) 426-4791.**

DEFINITIONS

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.
MCL (Maximum Contaminant Level): The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs 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 the addition of a disinfectant is necessary for the 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.
ppm (parts per million): One part by weight of analyte to 1 million parts by weight of the water sample.
ppb (parts per billion): One part by weight of analyte to 1 billion parts by weight of the water sample.
TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.
N/A: Not Applicable



Water Conservation Poster Contest City Winner: Chana Croituro, Div 2, 3rd Grade, Lubavitch Hebrew Academy

The DEES Water Treatment Plant processes an average of 7 million gallons of water per day and utilizes a network of 212 miles of water mains to deliver water to our customers.

ABOUT THE WATER QUALITY TESTING RESULTS TABLE →

The City of Margate 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 monitoring for the period of January 1 to December 31, 2020. Data obtained before January 1, 2020, and presented in this report are from the most recent testing done in accordance with the laws, rules and regulations.

WATER QUALITY TESTING RESULTS *(For the period January 1 - December 31, 2020)*

Radioactive Contaminants

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
1. Radium 226 (pCi/L)	7/2020	N	0.4	N/A	0	5	Erosion of natural deposits
2. Radium 228 (pCi/L)	7/2020	N	1.2	N/A	0	5	Erosion of natural deposits

Inorganic Contaminants

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
2. Antimony (ppb)	7/2020	N	0.35	N/A	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
3. Barium (ppm)	7/2020	N	.0063	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
4. Fluoride (ppm)	7/2020	N	0.61	N/A	4	4.0	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
5. Nitrate (as Nitrogen) (ppm)	7/2020	N	0.13	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
6. Sodium (ppm)	7/2020	N	41	N/A	N/A	160	Saltwater intrusion, leaching from soil

Synthetic Organic Contaminants including Pesticides and Herbicides

Disinfectant and Unit of Measurement	Dates of sampling (mo/yr)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
7. *Di(2-ethylhexyl) phthalate (ppb)	7/2020 – 9/2020	N	1.3	ND – 1.3	0	6	Discharge from rubber and chemical factories

**In 2020, we were required to test our drinking water system for Di (2-ethylhexyl) phthalate as part of the Synthetic Organic Contaminent (SOC) monitoring. After one sample in July 2020 exceeded the regulatory detection level (RDL), the monitoring frequency was changed from annually to quarterly as per State regulations. A subsequent sample collected in September 2020 showed no detect of this contaminant in our water system. While we missed our required sample in 4th Quarter 2020, resulting in a monitoring violation, subsequent samples collected also showed no detect of this contaminant. We are taking all necessary measures to ensure that all required monitoring is done on time as per State and Federal rules and regulations.*

Stage 1 Disinfectants and Disinfection By-Products

Disinfectant 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
8. Chloramines (ppm)	1/2020 – 12/2020	N	2.98	0.80 – 3.90	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes

Stage 2 Disinfectants and Disinfection By-Products

Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL Violation (Y/N)	Level Detected (LRAA)	Range of Results	MCLG	MCL	Likely Source of Contamination
9. Haloacetic Acids (HAA5) (ppb)	1/2020 – 12/2020	N	18.98	7.8 – 17.6	N/A	60	By-product of drinking water disinfection
10. Total Trihalomethanes (TTHM) (ppb)	1/2020 – 12/2020	N	19.95	9.1 – 24.4	N/A	80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	AL Exceeded (Y/N))	90th Percentile Result	No. of sampling sites exceeding AL	MCLG	AL (Action Level)	Likely Source of Contamination
11. Copper (tap water) (ppm)	7/2018	N	0.041	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
12. Lead (tap water) (ppb)	7/2018	Y	5.2	1	0	15	Corrosion of household plumbing systems; erosion of natural deposits

GENERAL HEALTH INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised individuals 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**.

FACTS ON 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 City of Margate 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 at (800) 426-4791** or at **www.epa.gov/safewater/lead**.

Connect with us...

Get City information and e-services on the web at: **margatefl.com**

Like the City's Facebook page at: **facebook.com/CityofMargateFL**

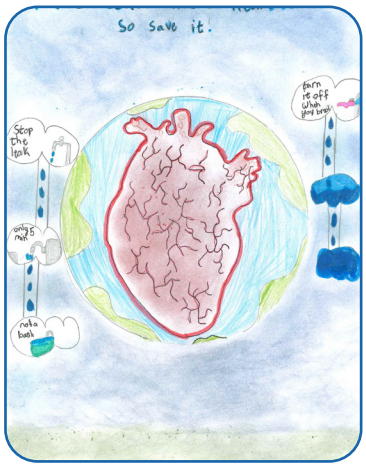
Like the City's Instagram page at: **instagram.com/CityofMargateFL**

Follow us on Twitter at: **twitter.com/CityofMargateFL**

WATER CONSERVATION

SAVE WATER AND MONEY WITH REBATES AND FREE DEVICES

As a partner in the Broward Water Partnership, the City of Margate is helping residents, businesses, and non-profits save water and money by offering rebates of up to $200 for residents and up to $500 for businesses and non-profits for replacing old water-guzzling toilets with new WaterSense labeled models. To help save, the City is offering FREE high-efficiency showerheads and faucet aerators to residents, and FREE high-efficiency pre-rinse spray valves to businesses and non-profits with commercial kitchens. Pre-approval is required for rebates and the number of rebates and devices available each fiscal year is limited. Free devices are available at 901 NW 66th Ave. during business hours (proof of residency required). For more information and to apply for rebates, visit **www.conservationpays.com** or call **(954) 972-0828**.



Water Conservation Poster Contest City Winner: Faigy Glassman, Div 3, 5th Grade, Lubavitch Hebrew Academy

CONSERVE WATER OUTDOORS

In an effort to promote water conservation through more efficient irrigation, the City of Margate implemented permanent irrigation restrictions. **Watering may occur only before 10 a.m. or after 4 p.m. as follows:**

Water Conservation Poster Contest City Winner: Ajay Pawar, Div 1, 1st Grade, RISE Academy

- Odd-numbered addresses: Wednesday, and/or Saturday
- Even-numbered addresses: Thursday, and/or Sunday

Using a "smart" irrigation controller can help further reduce irrigation by only watering when needed. To begin saving, look for an irrigation controller with the WaterSense label. For more information and tips on how to save water outdoors, please visit **www.epa.gov/watersense/outdoors**.

AUTOMATIC METER READING SYSTEM

In 2020, the City contracted with Zenner USA to convert existing water meter reading infrastructure to Automatic Meter Reading (AMR) system. The AMR system allows reading the water meters over a wireless network eliminating the need for personnel to physically visit each meter to take the reading. This new system will be a drastic improvement to meter reading efficiency. In addition to the labor cost savings, the system allows for early detection and reporting of leaks; water conservation monitoring and reporting; and eliminates the need for estimated bills. A total of 13,257 meters were converted to the AMR system through the end of 2020. There are approximately 3,500 meters remaining to be converted which are anticipated to be completed by the end of 2021.

This report will be available on the internet at www.margatefl.com/ccr2020. It will be mailed to customers only upon request and is also available at City of Margate facilities including City Hall, Department of Environmental and Engineering Services Administration Building, Broward County Margate Catharine Young Library, Northwest Focal Point Senior Center, and various parks and recreation facilities throughout the City.