Did You Know: We Make Our Own Bleach!

The Water Treatment Plant's On-Site Sodium Hypochlorite Generation System (OSHG) allows the plant to make its own sodium hypochlorite (bleach), the first ingredient and step in the disinfection of the water in our distribution system. The reason: Keeping our residents and employees safe from the risk of a chlorine gas leak, as well as a reduction in big-truck deliveries.

Previously, the plant used a chlorine gas system that was a concern to employees and the surrounding community due to its highly toxic nature. The OSHG has been in place and generating bleach for use in the plant for more than 10 years.

Here's a quick look at the water disinfection process:

Step 1: The OSHG uses electricity and salt water to form bleach.

Step 2: The newly made bleach is then stored in 6,400-gallon storage tanks.

Step 3: The bleach stored in the tanks is then mixed with the water before the treated water is pumped into the distribution system for use by residents and businesses.

Permanent Two-Day Watering Restrictions in Place

You may water before 10 a.m. or after 4 p.m. as follows:

- Odd-numbered addresses: Wednesday, Saturday
- Even-numbered addresses, no street address, and those that irrigate both even and odd addresses within the same zones (e.g., multi-family units and HOAs): Thursday, Sunday

For more information, visit www.sfwmd.gov/conserve (click on 'Landscape Irrigation Restrictions', 'Broward County') or call the Water Conservation Hotline at (800) 662-8876.

Conserve Water: Earn Rebates or Free Conservation Devices!

The City of Margate has partnered with the Broward Water Partnership to offer residents FREE low-flow showerheads and faucet aerators, and/or rebates of up to $200 for installing two high-efficiency toilets in place of toilets that use more than 1.6 gallons per flush. Businesses and non-profits are now eligible for the high-efficiency toilet rebates. Food service establishments can also take advantage of the free, low-flow pre-rinse spray valves being offered. Only a limited number of rebates and devices are available each fiscal year and pre-approval is required for the rebates. For more information, visit: www.conservationpays.com/partners/city-of-margate or call (954) 972-0828.

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 http://www.epa.gov/safewater/lead.

General 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 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.

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**

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

Search for "**Our Margate**" in your smartphone app store. It's free.

This report will be available on the internet at www.margatefl.com/ccr2015. 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.

CITY OF MARGATE
Together We Make It Great

City of Margate 2015 Water Quality Report

Published by the City of Margate Department of Environmental & Engineering Services JUNE 2016

Message from the Director...

The City of Margate Department of Environmental and Engineering Services (DEES) is pleased to provide you with the 2015 Water Quality Report, which shows our water quality results and what they mean. Our goal is to always provide you with a safe and dependable supply of drinking water, and as you will see from the results, our drinking water meets or exceeds all Federal and State requirements.

As always, the City continues to encourage all residents and businesses to 1) conserve water and take advantage of the tiered water rates, which allow for lower rates for using less water, and 2) take advantage of various rebates and water conservation program incentives promoted by the City.

The City is proactive in improving the water infrastructure and is aggressively pursuing upgrades as part of the five-year Capital Improvement Program (CIP) to facilitate treatment and supply of safe potable water to residents and businesses. The City replaced approximately 1,000 linear feet of old water main in calendar year 2015 and plans to invest over $10 million in the next five years to replace another 55,000 linear feet of water main that is nearing the end of its service life. In addition, construction of the new water main crossing across the C-14 canal is underway and is scheduled for completion in fiscal year 2016. Other infrastructure projects in the CIP for the water system include ongoing rehabilitation of the City's 12 raw water wells; rehabilitation of the utility aerial crossings across waterways in various parts of the City; and repair and replacement of various water treatment plant process equipment.

If you have questions about this report or any services offered by DEES, please call (954) 972-0828 or visit www.margatefl.com/dees. For water billing questions, call (954) 972-6454.

Water Conservation Poster Contest City Winner:
M. Soto, Grade 1, Div. 1

Water Conservation: Are You Doing Your Part?

We consume less than 1% of our treated water; the rest is used on lawns, in washing machines, or flushed down toilets and drains.

Turn to page 4 to learn how you can qualify for FREE water conservation devices and rebates!

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 chlorination for disinfection purposes. 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) 972-6454
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:
Mon—Thurs: 8 a.m.—6 p.m.
Operations: 24/7

Source Water Assessment & Protection Program (SWAPP)

In 2015, 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 65 potential sources of contamination identified for our system with low to moderate susceptibility levels, none of which 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) Inorganic 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.

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 (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.

About the 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, 2015. Data obtained before January 1, 2015, and presented in this report are from the most recent testing done in accordance with the laws, rules and regulations.

DEES's 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.

Water Quality Testing Results

For the period January 1—December 31, 2015

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)	1/2015-12/2015	N	3.3%/3	0	Presence of coliform bacteria in >5% of monthly samples.	Naturally present in the environment.

Inorganic Contaminants

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Level Detected	MCLG	MCL	Likely Source of Contamination
Barium (ppm)	8/2014	N	0.0064	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride (ppm)	8/2014	N	0.64	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.
Sodium (ppm)	8/2014	N	41.4	N/A	160	Salt water intrusion, leaching from soil.

Stage 1 Disinfectants

Disinfectant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL or MRDL Violation (Y/N)	Level Detected*	Range of Results	MRDLG	MRDL	Likely Source of Contamination
Chlorine (ppm)	1/2015-12/2015	N	3.1	0.8-4.0	4	4	Water additive used to control microbes.

Stage 2 Disinfection By-Products

Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation (Y/N)	Level Detected	Range of Results (LRAA)	MCLG	MCL	Likely Source of Contamination
Haloacetic Acids (HAA5) (ppb)	1/2015-12/2015	N	16.6	7.9-25.9	N/A	60	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM) (ppb)	1/2015-12/2015	N	15.4	5.0-25.4	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 the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (ppm)	7/2015	N	0.037	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead (ppb)	7/2015	N	1.0	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits.

**The level detected is the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected.*