



# MARCO SHORES

## 2015 Water Quality Report

### City of Marco Island Water and Sewer Dept

PWS ID#: 5110182

This report shows the water quality results and what they mean. It also provides important information about your water and how it relates to your health. The information in this report is based on facts and figures from the water purchased from Collier County and sampling results from the City's Monitoring Program. However, the U.S. Environmental Protection Agency (EPA) does not require the City to perform all tests every year. When necessary, some data was obtained from prior years. As directed by the agencies that regulate the industry, only values from these tests that exceeded specified criteria are included. We will notify you immediately if there is any reason for concern about the water.

Since August 10<sup>th</sup>, 2007 the potable water to the Marco Shores community has been supplied by Collier County via a purchase agreement with the City of Marco Island. The source water for the Collier County water system consists of groundwater from three well fields located in Golden Gate Estates. The North Hawthorn Well Field has 24 wells that provide water to the North County Regional Water Treatment Plant. The South Hawthorn Well Field has 42 wells that provide water to the South County Regional Water Treatment Plant. The Golden Gate Tamiami Well Field has 36 wells that provide water to both treatment plants.

The Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on the Collier County system in 2015. This assessment was conducted to provide information about any potential sources of contamination in the vicinity of the wells. Potential sources of contamination identified include underground petroleum storage tanks, injection wells, and industrial wastewater treatment plants. 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).

If you have any questions about this report or concerns about your water, then please contact the Marco Island Water and Sewer Department at (239) 394-3880. You may also visit the FDEP web site at [www.myflorida.com](http://www.myflorida.com) or call the EPA Safe Drinking Water Hotline at (800) 426-4791. The City would like the community to be informed about its water system. If you would like to learn more, then please call the Water and Sewer Department for information about the next opportunity for public participation in decisions about your drinking water.

#### HOW DO I READ THIS?

It's easy. The table shows the results of our water-quality analyses. The column marked "Level Detected" shows the highest results from the last time tests were performed. "Likely Sources" shows where this substance usually originates. Descriptions below explain other important details. In this table you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

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

**Maximum Contaminant Level (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 (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 (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 (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 contamination.

**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.

**90<sup>th</sup> Percentile** - An analytical result that is greater than or equal to 90% of the results.

## WHAT CAN I EXPECT TO FIND IN MY DRINKING WATER?

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 may 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 by-products 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 1-800-426-4791.

## 2015 ANNUAL DRINKING WATER QUALITY TEST RESULTS

The Marco Island Water and Sewer Department 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 the monitoring for the period of January 1 to December 31, 2015 for Marco Shores (PWS ID # 5110182). The Environmental Protection Agency (EPA) requires monitoring of over 80 drinking water contaminants. Those contaminants listed in the table below are the contaminants required to be reported in your drinking water.

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
Fluoride (ppm)	4/14	N	0.6	NA	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
Nitrate (as Nitrogen) (ppm)	6/15	N	0.086	NA	10	10	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Sodium (ppm)	4/14	N	48.6	48.5 – 48.6	NA	160	Salt water intrusion; leaching from soil

Stage 1 Disinfectants and Disinfection By-Products							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chloramines (ppm)	Monthly 2015	N	3.7	1.8 – 3.7	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	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Haloacetic Acids (five) (HAA5) (ppb)	8/15	N	23.5	20.3 – 23.5	NA	MCL = 60	By-product of drinking water disinfection
TTHM [Total - trihalomethanes] (ppb)	8/15	N	49.4	45.9 – 49.4	NA	MCL = 80	By-product of drinking water disinfection

## Lead and Copper (Tap Water) 2015

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)	9/15	N	0.1	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	9/15	Y	22 *	4	0	15	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

\*The city constantly monitors the water supply for various contaminants to meet all regulatory requirements. In September of 2015 four of the twenty Marco Shores samples exceeded the lead action level (AL) mandated by the state resulting in a lead AL “violation”. The city is confident that the exceedances occurred as a result of water remaining in the plumbing of residences during seasonal occupancy extended absences. Many of the residences had closed their individual water service valves to prevent water use during their seasonal absence. This resulted in stagnant water in the plumbing which then absorbed traces of lead from the plumbing welds. Since most of the residences were vacant in September of 2015, the City requested property managers to flush the water lines prior to sampling. Water may have been inactive (stagnant) in residential plumbing lines for up to four months before flushing.

The City met with FDEP in November of 2015 to discuss the Marco Shores 2015 lead and copper monitoring results. As a result of the September 2015 exceedance FDEP directed the City to sample and test for lead and copper biannually in 2016. The city sampled and tested the Marco Shores water in February and March of 2016. Results from this first sampling period indicate that the Marco Shores system did not exceed lead action levels. The 90<sup>th</sup> percentile results for the first sampling period in 2016 indicate that the level was 2.9 parts per billion (ppb), well under the AL of 15 ppb. The second sampling and testing period is from July 1 to December 31, 2016. If any of the remaining 2016 sampling and testing indicate a lead exceedance, then installation of an orthophosphate injection system to enhance corrosion control may be necessary.

**Infants and children who drink water containing lead in excess of the MCL could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. 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 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 or days, 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 (800-426-4791) or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).**

**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).**

The City would like you to understand the efforts it makes to continually improve the water treatment process and protect the water resources. The City is committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, then please feel free to call any of the numbers listed above.