



# Marco Island Utilities

## 2011 Water Quality Report

### MARCO SHORES

This report shows our water quality results and what they mean. It also provides important information about your water and how it relates to your health. In 2007 there was a treatment change in the Marco Shores water system. The treatment plant at Marco Shores was abandoned August 10<sup>th</sup>, 2007 and the utility started purchasing bulk water from Collier County Utilities. The information in this report is based on facts and figures from the water purchased from Collier County Utilities and sampling results from Marco Island Utilities' Monitoring Program. However, the U.S. Environmental Protection Agency (EPA) does not require us to perform all tests every year. When necessary, some data was obtained from prior years. As directed by the agencies that regulate our 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 our water.

Since August 10<sup>th</sup>, 2007 the water to the Marco Shores residence has been supplied by Collier County Utilities through a purchasing agreement with the City of Marco Island. The source water for the Collier County water System pumps groundwater from three well fields located in the 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 has performed a Source Water Assessment on the Collier County system in 2011. This assessment was conducted to provide information about any potential sources of contamination in the vicinity of the wells. Potential sources of contamination identified included 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 utility, please contact your Marco Island Utilities Representative at (239) 394-3880. You may also visit the DEP web site at [www.myflorida.com](http://www.myflorida.com) or call the EPA Safe Drinking Water Hotline at 1-(800) 426-4791. We want our valued customers to be informed about their water utility. If you would like to learn more, please call us 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:

**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.

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

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part by weight of analyte to 1 trillion parts by weight of the water sample.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - one part by weight of analyte to 1 quadrillion parts by weight of the water sample.

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

Millirem per year (mrem/yr) - measure of radiation absorbed by the body.

Million fibers per liter (MFL) - measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - measure of the clarity of water. Turbidity in excess of 3 NTU is just noticeable to the average person.

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

**Initial Distribution System Evaluation (IDSE):** An important part of the Stage 2 Disinfection Byproducts 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.

## 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 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.

## 2011 ANNUAL DRINKING WATER QUALITY TEST RESULTS

Marco Island 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, 2011 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 only contaminants detected in your drinking water.

<b>Radiological Contaminants – Collier County Monitoring Program</b>							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	RANGE	MCLG	MCL	Likely Source of Contamination
Radium 226+228 or combined radium (pCi/l)	7/09	N	0.66	0 - 0.66	0	5	Erosion of natural deposits

<b>Inorganic Contaminants - Collier County Monitoring Program</b>							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range	MCLG	MCL	Likely Source of Contamination
Chromium (ppb)	3/11	N	4.0	ND – 4.0	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Cyanide (ppb)	3/11	N	5.2	ND – 5.2	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories.

**Inorganic Contaminants - continued**

Fluoride (ppm)	Monthly 2011	N	0.98	0.55 – 0.98	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3ppm
Nitrate (as Nitrogen) (ppm)	3/11	N	0.081	0.050 - 0.081	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	3/11	N	65.9	46.4 – 65.9	N/A	160	Salt water intrusion, leaching from soil

**Stage 1 Disinfectant/Disinfection By-Product (D/DBP) Parameters – Collier County Monitoring Program**

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 2011	N	3.3	0.7 - 4.7	MRDLG = 4	MRDL = 4	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	8/11	N	14.2	7.5 – 20.8	NA	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	8/11	N	35	15.5 - 54.6	NA	MCL = 80	By-product of drinking water disinfection

**Lead and Copper (Tap Water) - Marco Island Utilities Monitoring Program**

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	AL Violation Y/N	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	8/09	N	0.038	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead(tap water) (ppb)	8/09	N	2.0	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

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).

We at Marco Island Utilities 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 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 above.