



2004 Annual Drinking Water Quality Report City of Mary Esther, Florida



We are pleased to announce that our drinking water meets all Federal and State requirements.

We are pleased to present to you this year's Annual Water Quality Report. Except where otherwise noted, this report is based on the results of our monitoring for the period of January 1 to December 31, 2004. Data obtained before January 1, 2004, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

This report is designed to inform you about the quality water and services we deliver to you every day. Our goal is and has always been to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. **We are committed to ensuring the quality of your water.** The City of Mary Esther receives its water from three active wells and one backup well that are approximately 700 feet deep and which draw from the Floridan Aquifer. Because of the excellent ground water quality, the only treatments required are aeration and chlorination for disinfection purposes, and add orthophosphate for corrosion control (red water).

The Department of Environmental Protection is in the process of conducting **Source Water Assessments (SWA)** for all public water systems in Florida. These assessments will identify and assess any potential sources of contamination in the vicinity of your water supply. An SWA report for this system is available or will be by July 1, 2005 at the DEP SWAPP web site: www.dep.state.fl.us/swapp.

Improvements made during the 2004 calendar year include:

- **At the Main water plant, aerator #1 was coated inside to prevent corrosion, the blower housing was replaced, and air intake screens were added to protect the blower assembly from objects entering. The blower assembly was renovated as part of the maintenance.**
- **All 4 ground storage tanks were painted & sealed inside and out, and while they were offline the opportunity was taken to replace two 10" and one 8" valves which were inoperable.**
- **The aerator at Plant #3 was sealed and painted and a new splash pan was installed.**
- **The elevated tanks at Plants #1, #3 and #4 have all been painted on the exterior, and the interior of tanks #1 and #3 were also painted.**
- **Two fire hydrants were relocated and replaced on U.S. Highway 98 to the back of the sidewalk, and two other hydrants were replaced and valves installed on Dawn Lane and on Shrewsbury Road.**

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. 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. In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food & Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the **Environmental Protection Agency Safe Drinking Water Hotline, 1-800-426-4791.**

The Mary Esther Water Treatment Plant routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.*
- 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.*
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.*
- 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.*
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.*

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 of the 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).

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

If you have any questions about this report or concerning your water utility, please contact Steve Trainor at (850) 243-3566,

extension 17 or any of the other numbers listed. We encourage our customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Council workshop meetings on the last Monday of each month at 7:00 p.m., City Hall, 195 Christobal Rd. North. *(please see reverse side for water testing results)*

In the table below, 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.

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

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

“**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.

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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

2004 TEST RESULTS TABLE

Total coliform bacteria: Highest Monthly Number is the highest monthly number of positive samples for systems collecting fewer than 40 samples per month.							
Microbiological Contaminants							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Highest Monthly Number	MCLGs	MCL	Likely Source of Contamination	
Total Coliform Bacteria	May 04	NO	1	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	
** Results in the Level Detected column for radiological contaminants, inorganic contaminants, synthetic organic contaminants including pesticides and herbicides, and volatile organic contaminants are the highest average at any of the sampling points or the highest detected level at any sampling point, depending on the sampling frequency.							
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
Radiological Contaminants							
Alpha emitters (pCi/l)	Feb. 02	NO	3.9	2.4-3.9	0	15	Erosion of natural deposits
Radium 226 or combined radium (pCi/l)	Feb. 02	NO	0.9	0.7-0.9	0	5	Erosion of natural deposits
Inorganic Contaminants							
Fluoride (ppm)	Feb. 02	NO	1.2	0.9-1.2	4	4.0	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer or aluminum factories
Nitrate (as Nitrogen) (ppm)	Aug. 043	NO	0.25	ND-0.25	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	Feb. 02	NO	127	119-127	N/A	160	Salt water intrusion, leaching from soil
Thallium (ppb)	Feb. 02	NO	2.0	ND-2.0	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
TTHMs and Stage 1 Disinfectant/Disinfection By-Product (D/DBP) Parameters							
For the following parameters monitored under Stage 1 D/DBP regulations, the level detected is the annual average of the quarterly averages: Chlorine, Haloacetic Acids, and / or TTHM (MCL 80 ppb). Range of Results is the range of results (lowest to highest) at the individual sampling sites.							
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
Chlorine (ppm)	Jan.-Dec. 04	NO	0.66	0.4-0.95	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	Jul-04	NO	3.13	ND-6.7	NA	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	Jul-04	NO	18.33	6.0-38	NA	MCL = 80	By-product of drinking water disinfection
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
Lead and Copper (Tap Water)							

Copper (tap water) (ppm)	Jun-Sep04	NO	0.277	0of20	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	Jun-Sep04	NO	1.0	0of20	0	15	Corrosion of household plumbing systems, erosion of natural deposits