



# LET'S TALK WATER !

## HERNANDO COUNTY UTILITIES DEPARTMENT 2004 WATER QUALITY REPORT FOR THE WEST HERNANDO WATER SYSTEM

As required by the Environmental Protection Agency's Clean Drinking Water Act of 1996, the following information will be provided to our customers on an annual basis.

### **INTRODUCTION**

We are proud to report that the drinking water provided by Hernando County Utilities Department meets or exceeds all State and Federal Regulations. Hernando County Utilities will continue to use the most advanced technology to provide safe, potable and abundant supplies of drinking water to its customers.

### **SOURCES OF HERNANDO COUNTY DRINKING WATER**

The Hernando County Water System draws its water from the Floridan aquifer, by way of deep wells. The water from this aquifer is of consistently high quality. It is primarily fed by rain water that is filtered through hundreds of feet of sand and rock in a natural cleansing process. Because of its high quality, the water needs little or no treatment other than disinfection. The Floridan stretches 82,000 square miles beneath Florida and parts of Alabama, Georgia, and South Carolina. The aquifer is primarily made up of limestone. Limestone rock acts like a sponge to hold water. The holes in the rock allow the water to flow freely through it. The aquifer is replenished in a natural process called "recharge." Recharge occurs when water seeps through the soil down into the aquifer's limestone layer to be stored. The Floridan has an average thickness of 1,000 feet, but has been estimated to be 3,500 feet thick in Southwest Florida.

The Florida Department of Environmental Protection completed conducting Source Water Assessments for all public water systems in Florida. These assessments identify and assess any potential sources of contamination in the vicinity of your water supply. A Source Water Assessment for this system was completed in October 2004; the report is available at the DEP Source Water Assessment and protection web site. <http://www.dep.state.fl.us/swapp>.

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 stormwater 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 stormwater 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 stormwater 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.

### **WATER QUALITY IS MAINTAINED TO THE TAP**

The water from the aquifer is of consistently high quality. Because of its high quality, the water requires no treatment other than aeration and chlorination. Water from the treatment plant is delivered to your home through an extensive distribution system of underground pipes. Water quality can deteriorate in these pipes. The first step in preventing degradation begins with a comprehensive surveillance and monitoring program. Water samples at selected locations throughout the distribution system are constantly checked for chemical and microbiological quality. In addition, water pipes in some areas are periodically flushed to remove "stale" water.

Hernando County 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, 2004. Data obtained before January 1, 2004, and represented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

### **CRYPTOSPORIDIUM**

Cryptosporidium is a microscopic organism that when ingested, can result in diarrhea, fever and other gastrointestinal symptoms. Hernando County's water system has never detected the presence of this organism. Cryptosporidium comes from waste material of warm-blooded animals and is found in surface water. Since Hernando County's water system utilizes wells as the sole source of raw water, the presence of Cryptosporidium is not expected to occur.

### **LEAD AND COPPER**

Hernando County Utilities' water system has been in full compliance with all regulations for Lead and Copper control since they were instituted in 1992. In fact, all of our water systems are on reduced monitoring for lead and copper.

### **ADDITIONAL INFORMATION**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as a people with cancer, people who have undergone organ transplants, people with HIV/Aids or other immune system disorders, some elderly, and infants can be at risk from infections. 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. For additional information you may contact your local health provider, or call the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

An active cross connection control program further protects the distribution system. This program identifies and corrects, as well as protects, against unauthorized hookups between the county distribution system and non-potable water, at sources such as irrigation wells.

Focusing on its customers and educating the public on the importance of water and conservation, the Utilities department facilitated the formation of the "Citizens for W.A.T.E.R." (Water Awareness Through Education and Resources) group which developed and coordinated a schedule of water awareness seminars for the public. Citizens for W.A.T.E.R meet every fourth Thursday. The group brainstorms, learns and works on programming ventures. If you'd like to meet the group members or if you have an idea you'd like us to hear, you're welcome to attend. For further information about our programs, what we could do for your community organization, visiting us or becoming one of us, call Kay Adams at (352) 754-4037.

We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. The Hernando County Utilities Department operates 24 hours a day, 7 days a week to provide top quality water to every tap. If you have any questions about this report or concerning your water utility, please contact Mack Washington, Water Plants Supervisor, at (352) 754-4490, Monday through Friday from 7:30 a.m. until 4:00 p.m.

# West Hernando Water System

## DEFINITIONS:

### Contaminant:

Any physical, chemical, biological, or radiological substance or matter in the water.

### Maximum Contaminant Level (MCL):

The maximum permissible of a contaminant in water which is delivered to any user of a public water system.

### Maximum Contaminant Level Goal (MCLG):

The level of a contaminant in drinking water below which there is no known or expected risk to health.

### Action Level (AL):

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

### ND:

Not Detected - indicates that the substance was not found by laboratory analysis

### PPB or ug/l:

Parts per billion or Micrograms per liter - One part by weight of analyte to 1 billion parts by weight of the water sample

### PPM or Mg/l:

Parts per million or Milligrams per liter - One part by weight of analyte to 1 million parts by weight of the water sample

### pCi/L:

Picocurie per liter - Measure of the radioactivity in water

### N/A:

Not Applicable ( does not apply )

### Maximum Residual

The highest level of a disinfectant allowed in drinking water . There is convincing

### Disinfectant Level (MRDL)

evidence that addition of a disinfectant is necessary for the control of microbial contaminants

Lead and Copper ( Tap Water )							
Contaminant and Unit of Measurement	Date of sampling Mo-Yr	AL Violation Y/N	90 <sup>th</sup> Percentile results	No. of sampling sites exceeding the AL	MCLG	AL	Likely Source of Contamination
Lead (ppb)	7-2002	N	3	0	0	AL= 15	Corrosion of household plumbing systems, erosion of natural deposits
Copper (ppb)	7-2002	N	.45	0	0	1.3	Corrosion of household plumbing systems ; erosion of natural deposits ; leaching from wood prese

## TEST RESULTS TABLE West Hernando Water System PWS ID# 6277059

### Microbiological Contaminants

Contaminant and Unit of Measurement	Date of Sampling Mo - Yr	MCL Violation Y/N	Highest monthly number of positive samples	MCL	MCLG		Likely Source of Contamination
Total Coliform Bacteria	7-2004	N	3 (2.5 %)	For systems collecting at least 40 sampler per month; presence of coliform bacteria in 5 % or more of monthly samples	0		Naturally present in the environment

### Inorganic Contaminants

Contaminant and Unit of Measurement	Date of sampling Mo-Yr	MCL Violation Y/N	Level Detected	Range of results	MCLG	MCL	Likely Source of Contamination
Arsenic	4, 7-2002	N	9.3	ND - 9.3	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Asbestos (MFL)	5-2002	N	0.06	N/A	7	7	Decay of asbestos cement water mains; erosion of natural deposits
Barium (ppm)	2,4,7-2002	N	.011	0.0025 - .011	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	2,4,7-2002	N	1.8	ND - 1.8	100	100	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride (ppm)	2,4,7-2002	N	.11	.029 - .11	4	4	Erosion of natural deposits; water additive which promotes strong teeth; dischare from fertilizer and aluminum factories
Mercury (ppb)	2-2002	N	.2	ND - 0.2	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from crop land
Nickle (ppb)	2-2002	N	1.4	ND - 1.4	N/A	100	Pollution frommining and refining operations; Natural occurance in soil
Nitrate (as Nitrogen) (ppm)	5-2004	N	2.33	0.08 - 2.33	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	2-2002	N	1.4	1 - 1.4	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	2,4,7-2002	N	6.7	3.6 - 6.7	N/A	160	Salt water intrusion, leaching from soil

**ARSENIC** - "While your drinking water meets USEPA's standard for arsenic, it does contain low levels of arsenic. USEPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. USEPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems."

### Stage 1 Disinfectant/Disinfection By-Products ( D/DBP ) Parameters

Contaminant and Unit of Measurement	Date of sampling Mo-Yr	MCL Violation Y/N	Level Detected	Range of Results	MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)	Jan. - Dec. - 2004	N	.87	.2 - 2.2	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	3,6,8,12 - 2004	N	.63	ND - .63	N/A	MCL = 60	By-product of drinking water disinfection
TTHM (Total Trihalomethanes) (ppb)	3,6,8,12 - 2004	N	8.3	5.5 - 8.3	N/A	MCL = 80	By-product of drinking water disinfection



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