

2005

Annual Drinking Water Report

**The City of Winter Springs
East System I.D. 3591394 - 851 Northern Way WTP #1
West System I.D. 3590879 - 700 Sheoah Blvd. WTP- #2 &
110 W. Bahama Rd. WTP- #3**

We're very pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the water quality and services we have delivered to you over the past year. Our goal has always been, to provide to you a safe and dependable supply of drinking water. The Tuscowilla and Oak Forest areas are generally served by the East system with the remainder of the City served by the West system although the systems are interconnected.

Our East facility delivers over 1 billion gallons of treated water annually. A total of three (3) production wells at this facility pump an average of 2.740 million gallons daily to meet the residential, commercial and irrigation needs. The fourth production well for this facility will be completed in Summer of 2006. Our West facilities deliver over 430 million gallons of treated water annually from both plants. A total of four (4) production wells pump an average of 1.294 million gallons daily to meet the residential, commercial and irrigation needs. These wells are located within close proximity to the plants and have an average depth of 350 feet, tapping into the Floridan Aquifer. The Department of Environmental Protection has performed a Source Water Assessment in 2004 for our East and West facilities and found potential contaminate from commercial petroleum tanks within the vicinity of our well field. Although the susceptibility level is moderate we are closely monitoring for any changes. The assessment results are available on the FDEP website at www.dep.state.fl.us/swapp

At all of the Winter Springs treatment plants, cascading aeration trays are used to strip the water of Hydrogen Sulfide. The water is then disinfected by Chlorine gas or Sodium Hypochlorite before being pumped into the distribution system.

If you have any questions about this report or concerning your water utility, please contact the water treatment facility at 327-8992 from 8:00 am to 4:30 P.M. Monday-Friday. We want our valued customers to be informed about their water utility.

The City of Winter Springs routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our most recent monitoring period from January 1st to December 31st 2005. The state allows us to monitor for some contaminants less than once a year because the concentration of these contaminants does not change frequently. Some of our data, though representative, are more than one year old. All water analyses are the most recent sampling in accordance with the Safe Drinking Water Act. All 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.

In the following tables you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Not Applicable (N/A) – does not apply

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/l) - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

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

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Maximum Contaminant Level (MCL) - The “Maximum Allowed” is 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 “Goal” is 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.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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).

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

Please call our office if you have questions.

We at the City of Winter Springs work around the clock to provide top quality water to every tap. 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 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

In 2004 we did not include our chlorine residual report in the disinfection bi-product table. This resulted in a violation. This year the average residual and range has been included.

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.

3591394 Winter Springs East TEST RESULT TABLE

** 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	Date of sample analysis	MCL/AL Violation Y/N	Level Detected	Range	MCLG	MCL	Likely Source of Contamination
Bacteriological Contaminants							
Total Coliform	1/05-12/05	N	0	0 out of 240	0	> 5% month	Naturally present in the environment

Radiological Contaminants							
Gross Alpha (pCi/l)	6/05	N	3.0	N/A	0	15	Erosion of natural deposits
Inorganic Contaminants							
Contaminant and Unit of Measurement	Date of sample analysis	MCL/AL Violation Y/N	Level Detected	Range	MCLG	MCL	Likely Source of Contamination
Barium (ppm)	6/05	N	.0150	N	2	2	Discharge from drilling waste; Erosion of natural deposits.
Chromium (ppb)	6/05	N	0.008	N	100	100	Discharge from steel and pulp mills; Erosion of natural deposits.

Sodium (ppm)	6/05	N	23.8	N/A	N/A	160	Salt water intrusion, leaching from soil
Nickel (ppm)	6/05	N	.002	N/A	N/A	0.1	Corrosion of household plumbing systems, erosion of natural deposits
Selenium (ppm)	6/05	N	.004	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines

Lead and Copper Home Sampling							
Lead (tap water) (ppb)	2005	N	3.5 (90 th percentile)	0 sampling site exceeded AL	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Copper (tap water) (ppm)	2005	N	.686 (90 th percentile)	0 sampling site exceeded AL	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Volatile Organic Contaminants

Dichloromethane (ppb)	6/05	N	2.41	N/A	0	5.0	Discharge from pharmaceutical and chemical factories
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TTHMs and Stage 1 Disinfectant/Disinfection By-Product (D/DBP) Parameters

Choose one bulleted paragraph below according to the Section 7 instructions, depending on when monitoring began:

- For the following parameters monitored under Stage 1 D/DBP regulations, the level detected is the highest annual average of the quarterly averages: Bromate, Chloramines, 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.
- For the following parameters monitored under Stage 1 D/DBP regulations, the level detected is the annual average of the quarterly averages: Bromate, Chloramines, 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
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78. Chlorine (ppm)	2005	N	1.4	0.2-2.9	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
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79. Haloacetic Acids (five) (HAA5) (ppb)	2005	N	44.0 (annual average)	12.7-44.0	NA	MCL = 60	By-product of drinking water disinfection
80. TTHM [Total trihalomethanes] (ppb)	2005	N	69.7 (annual average)	31.66-69.7	NA	MCL = 80	By-product of drinking water disinfection

3590879 Winter Springs West TEST RESULT TABLE

** 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	Date of sample analysis	MCL/AL Violation Y/N	Level Detected	Range	MCLG	MCL	Likely Source of Contamination
Bacteriological Contaminants							
Total Coliform	1/05-12/05	N	0	0 out of 240	0	> 5% month	Naturally present in the environment
Radiological Contaminants							
Gross Alpha (pCi/l)	6/05	N	1.7	1.0-1.7	0	15	Erosion of natural deposits
Inorganic Contaminants							
Barium (ppm)	6/05	N	.012	.010-.0120	2	2	Discharge from drilling waste; Erosion of natural deposits.
Chromium (ppb)	6/05	N	8.00	5.00-8.00	100	100	Discharge from steel and pulp mills; Erosion of natural deposits.
Sodium (ppm)	6/05	N	11.9	11.8-11.9	N/A	160	Salt water intrusion, leaching from soil

Inorganic Contaminants (continue)							
Selenium (ppm)	6/05	N	.003	.002-.003	.05	.05	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Barium (ppm)	6/05	N	.012	.01-.012	2	2	Discharge from drilling waste; Erosion of natural deposits.
Sodium (ppm)	6/05	N	11.9	11.8-11.9	N/A	160	Salt water intrusion, leaching from soil
Volatile Organic Contaminants							
Dichloromethane (ppb)	6/05	N	2.06	N/A	0	5.0	Discharge from pharmaceutical and chemical factories

Lead and Copper Home Sampling

Lead (tap water) (ppb)	2005	N	.003 (90 th percentile)	0 site exceeded AL	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Copper (tap water) (ppm)	2005	N	.800 (90 th percentile)	0 sampling sites exceeded AL	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TTHMs and Stage 1 Disinfectant/Disinfection By-Product (D/DBP) Parameters

Choose one bulleted paragraph below according to the Section 7 instructions, depending on when monitoring began:

- For the following parameters monitored under Stage 1 D/DBP regulations, the level detected is the highest annual average of the quarterly averages: Bromate, Chloramines, 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.
- For the following parameters monitored under Stage 1 D/DBP regulations, the level detected is the annual average of the quarterly averages: Bromate, Chloramines, 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
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78. Chlorine (ppm)	2005	N	1.4	0.2-2.9	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
79. Haloacetic Acids (five) (HAA5) (ppb)	2005	N	44.0 (annual average)	12.7-44.0	NA	MCL = 60	By-product of drinking water disinfection
80. TTHM [Total trihalomethanes] (ppb)	2005	N	69.7 (annual average)	31.66-69.7	NA	MCL = 80	By-product of drinking water disinfection

HELPFUL WATER HINTS

LOWERING WATER BILL & CONSERVING WATER:

1. An average tub holds 50 gallons of water. Conserve water by only partially filling the tub.
2. Install water saving showerheads.
3. Only run dishwashers and washing machines with full loads.
4. Regularly check pipes, hoses, valves, and faucets for leaks
5. Add food coloring to the water in the tank. If color appears in bowl without flushing, there is a leak. Fix or replace parts.
6. Longer grass means less evaporation. Let grass grow taller in hot, dry weather.
7. Set irrigation timer for early morning, around 2 A.M. or 3 A.M. to help prevent evaporation and help to increase your water pressure for household activities.
8. Install an irrigation rain gauge to prevent over watering.
9. Use a broom instead of a water hose to clear debris from patios, driveways, and sidewalks.
10. Do not allow garden hose's to run unattended.

Watering Restriction

Irrigation is prohibited between 10a.m. and 4p.m.

Even residential and commercial addresses can water their lawns Thursday and Sundays

Odd residential and commercial addresses can water their lawns Wednesday and Saturday

This includes all water sources including potable water, reclaimed water, surface water and wells.

For more information on rules under the water restriction you can contact the City of Winter Springs Water Treatment facility at 407-327-8992.