

***2007 Annual Drinking Water Quality Report***  
***Orange City Utilities***  
***PWS # 3640946***

We're very pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been to provide to you a safe and dependable supply of drinking water. Our water source is groundwater from the Floridan Aquifer and is chlorinated for disinfection purposes, phosphate is also added to maintain the lines and the quality of the water, along with aeration.

- This report shows our water quality results and what they mean.

If you have any questions about this report or concerning your water utility, please contact Cheryl Bredbenner, Utilities Superintendent at (386) 775-5449. We encourage our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second and fourth Tuesday of every month, at the Orange City Council Chambers, 207 North Holly Ave.

Orange City 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, 2007. Data obtained before January 1<sup>st</sup>, 2007 and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

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 that, if exceeded, triggers treatment or other requirements that a water system must follow.

*Picocurie per liter (pCi/L):* Measure of the radioactivity in water.

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

*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 contaminants.

*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.

“ND” means not detected and indicates that the substance was not found by laboratory analysis.

## Water Quality Testing Results

### NON-SECONDARY CONTAMINANTS TABLE

<b>Microbiological Contaminants</b>						
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Highest Monthly Number	MCLG	MCL	Likely Source of Contamination
1. Total Coliform Bacteria	1/07-12/07	N	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

*Microbiological Contaminants:*

- (1) Total Coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

<b>Inorganic Contaminants</b>							
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
Barium (ppm)	4/05	N	.028	.020 -.028	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Arsenic (ppb)	4/05	N	.9	.3-.9	NA	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Fluoride (ppm)	4/05	N	.09	.05 -.09	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 1.3 ppm.
Cyanide (ppb)	4/05	N	2.7	ND- 2.7	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories.
Lead (point of entry) (ppb)	4/05	N	.34	ND – .34	N/A	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Selenium (ppb)	4/05	N	.2	ND-.2	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Nitrate (as Nitrogen) (ppm)	4/07	N	0.95	.054-0.95	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	4/05	N	70	11 - 70	N/A	160	Salt water intrusion, leaching from soil

## Stage 1 Disinfectants And Disinfection By-Products

For the following parameters monitored under Stage 1 D/DBP regulations, the level detected is the annual average of quarterly averages: Bromate, Chloramines, Chlorine, Haloacetic Acids, and/or TTHM (MCL 80ppb). Range of results is the range of results (lowest to highest) at the individual sampling sites.

Disinfectant or Contaminant	Days 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)	1/07 -12/07	N	1.1	0.4 - 1.7	MRDLG=4	MRDL=4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) ( ppb)	1/07 -12/07	N	19.1	1 – 32.6	N/A	MCL=60	By-product of drinking water disinfection
TTHM (Total trihalomethanes) (ppb)	1/07 -12/07	N	61.2	2.7 - 130	N/A	MCL=80	By-product of drinking water disinfection
Contaminant and Unit of Measurement	Days of Sampling (mo./yr.)	AL Violation Y/N	90 <sup>th</sup> Percentile Results	No.of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination

## Lead and Copper (Tap Water)

Copper (tap water) (ppm)	8/07	N	0.46	1 site exceeded the AL	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	8/07	N	7.6	0 sites Exceeded the AL	0	15	Corrosion of household plumbing systems, erosion of natural deposits

Orange City Utilities sampled for Lead & Copper in 2007, with satisfactory results. We will continue increased monitoring because of a 2005 monitoring violation for Lead & Copper until the Volusia County Health Department is satisfied that we are in compliance. Below is the mandatory language of the possible health effects of lead & copper that we must include in this report.

*Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning disabilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.*

*Copper is an essential nutrient, but some people who drink water containing copper, in excess of the action level over a relatively short amount of time, could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.*

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. The **Source Water Assessment and Protection Program** or SWAPP was created in order to protect our vital resources. SWAPP is meant to ensure that your drinking water is safe, not just at the tap, but at it's source. In 2006 the Department of Environmental Protection performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are 11 potential sources of contamination identified for this system with a Low- High susceptibility level. 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) or they can be obtained from Orange City Utilities at 386-775-5449.

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.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

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 Orange City 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 ensuring 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.