

# 2008 Annual Drinking Water Quality Report

— Utilities Commission, City of New Smyrna Beach —



## ABOUT THIS WATER REPORT

You are receiving this Annual Water Quality Report (or Consumer Confidence Report) as a requirement by the EPA under the 1996 Safe Drinking Water Act Amendments. This report is the summation of the monitoring of the Utilities Commission water supply throughout 2008. In this report, you will find information about where your water comes from and what it contains, as well as mandatory health information from the EPA.

UCNSB routinely monitors for contaminants in our drinking water according to federal and state laws, rules, and regulations.

**We are pleased to report that the drinking water provided by UCNSB meets or exceeds water quality standards instituted by all federal and state regulatory agencies.** Our findings are reported on the data table inside.

For nearly 20 years, the average daily water usage per person in our service area has steadily decreased, even as our population continues to grow. This shows our community's commitment to preserving our water supply. Here are more ways you can help conserve water:

- **Low-flow showerhead exchange.** The UC offers low-flow showerheads and water-saving kits. To get yours, bring in your old 2.5 gallon per minute or greater showerhead to the UC office at 200 Canal Street. Since October, we have distributed over 500 low-flow showerheads.

- **Waterwise demonstration garden.** In partnership with Lindley's Nursery and Garden Center, the UC completed a waterwise demonstration garden in the parking area of the Canal Street office. The garden showcases plants that require small amounts of water and encourages customers to use waterwise plants in their landscaping.
- **Commercial kitchen pre-rinse spray valve.** The UC offers free power-spray rinsers to commercial kitchens. You can save up to 80% on your water consumption without noticing a change in your sprayer's water pressure or flow.

The employees at the UC work around the clock to provide top quality water to every customer. We ask that everyone help us protect our water sources, which are the heart of our community, our way of life, and our children's future.

Thank you!

A handwritten signature in black ink that reads "Curt McKenzie".

Senior Chemist and Compliance Specialist



*According to the St. Johns River Water Management District, more than half of residential, potable water use occurs outdoors. You can help conserve water outdoors by only watering on your specified days and by using waterwise plants, as displayed above in our Waterwise Demonstration Garden.*

### For additional information:

**Phone:** (386) 427-1367

**Web:** [www.ucnsb.org](http://www.ucnsb.org)

**"Ask Curt" Water Quality Hotline:** (386) 424-3184

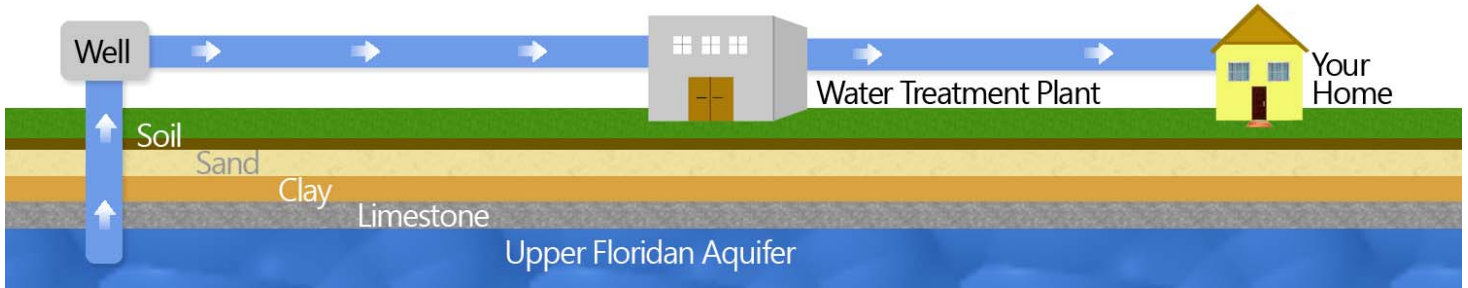
Please attend our Commission meetings, which are open to the public and are usually held the third Monday of the month at 6 p.m. in the DeBerry Room (3rd floor) of the UCNSB office, 200 Canal Street.

# WHERE YOUR WATER COMES FROM

The raw water supply for the Utilities Commission is groundwater obtained from the Upper Floridan Aquifer via 19 deep wells. UCNSB serves 23,716 water connections within a service area of 41.3 square miles. In 2008, we delivered 1.6 billion gallons of water to customers.

## HOW YOUR WATER IS TREATED

Prior to being pumped to customers, the water is chlorinated and ammonia is added to create chloramines for disinfection purposes, softened to lower total hardness and alkalinity, pH adjusted, fluoridated, and filtered.



## HOW TO READ THIS REPORT

The EPA requires monitoring of over 80 drinking water contaminants. The data tables on the next page contain only contaminants that were within detectable levels. For each contaminant detected, you will find:

- The detected substance's name,
- The date of sampling,
- The range of measurements detected,
- The level detected,
- The Maximum Containment Level (MCL), as prescribed by federal and state regulation, and whether or not we are in violation of the contaminant's MCL,
- The Maximum Containment Level Goal (MCLG), and
- The likely source(s) of contamination.

Please use the definitions below for any terms you are not familiar with. The detected levels in our water were well below the MCLs for all contaminants.

### CROSS CONNECTION PROGRAM

UCNSB has a Cross Connection Program to help ensure that water from outside sources does not enter the distribution system. Under certain conditions, water can possibly re-enter the potable water distribution system after picking up contaminants. Of particular concern are homes on our system that also have private wells, customers with reuse water hook-ups, or from yard irrigation systems through backflow or back-siphonage. Interconnection through plumbing errors is sometimes found to be a leading cause of cross-connection. Our Backflow Technician works full-time to inspect, test, and mitigate cross connections as needed through such tools as backflow preventers.

## DEFINITIONS

**AL: Action Level.** The concentration that, if exceeded, triggers treatment of the water system or other requirements as needed.

**MCL: Maximum Contaminant Level.** 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.

**MCLG: Maximum Contaminant Level Goal.** 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.

**MRDL: Maximum Residual Disinfectant Level.** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants.

**MRDLG: Maximum Residual Disinfectant Level Goal.** The level of a drinking water disinfectant below which there is no known or expected health risk. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**N/A:** Not applicable.

**ppm: Parts per million.**

One part by weight of analyte to 1 million parts by weight of the water sample.

**ppb: Parts per billion.**

One part by weight of analyte to 1 billion parts by weight of the water sample.



# WATER QUALITY TEST RESULTS

Of the 80 possible contaminants, few were present in our water. Of course, no water is contaminant free and we are required to report **any** contaminant we find at **any** level of detection. **All test results were well below allowable levels.** The UCNSB Water Department staff is diligent about making your water safe, available, and uniform in consistency. In fact, our water quality regulations are more extensive than those of bottled water companies

These results are based on our monitoring for the period of January 1 to December 31, 2008.

## MICROBIOLOGICAL CONTAMINANTS

Contaminant and Unit of Measurement	Date of Sampling	MCL Violation	Highest Monthly %	MCLG	MCL	Likely Source of Contamination
<b>Total Coliform Bacteria</b> (% of positive samples)	2008	No	3%	0	Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment

## INORGANIC CONTAMINANTS

Contaminant and Unit of Measurement	Date of Sampling	MCL Violation	Level Detected	Range Detected	MCLG	MCL	Likely Source of Contamination
<b>Barium</b> (ppm)	9/08	No	0.0053	N/A	200	200	Discharge from drilling wastes; discharge from metal refineries; erosion of natural deposits
<b>Cyanide</b> (ppb)	9/08	No	8	N/A	200	200	Discharge from steel/metal factories; discharge from plastic & fertilizer factories
<b>Fluoride</b> (ppm)	Monthly 2008	No	1.1	0.13-1.1	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive that promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm.
<b>Nitrate, as Nitrogen</b> (ppm)	9/08	No	0.064	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Sodium</b> (ppm)	9/08	No	27	N/A	N/A	160	Salt water intrusion; leaching from soil

## STAGE 1 DISINFECTANT/DISINFECTION BY-PRODUCT CONTAMINANTS

Disinfectant or Contaminant and Unit of Measurement	Date of Sampling	MCL Violation	Level Detected*	Range Detected	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
<b>Chloramines and Chlorine</b> (ppm)	Monthly 2008	No	3.6	0.6-6.0	MRDLG=4	MRDL=4	Water additive used to control microbes
<b>Haloacetic acids</b> (five) HAA5 (ppb)	Quarterly 2008	No	47.2	38.4-59.8	N/A	MCL=60	By-product of drinking water disinfection
<b>TTHM</b> (ppb) Total trihalomethanes	Quarterly 2008	No	69.4	60-77	N/A	MCL=80	By-product of drinking water disinfection

\* For these contaminants monitored under Stage 1 D/DBP regulations, the "level detected" is the highest quarterly annual average. The "range detected" is the range (lowest to highest) at the individual sampling sites.

## LEAD AND COPPER

Contaminant and Unit of Measurement	Date of Sampling	AL Violation	90th Percentile Result	No. of sampling sites exceeding the AL	AL	MCLG	Likely Source of Contamination
<b>Copper</b> (tap water) (ppm)	9/08	No	0.4	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
<b>Lead</b> (tap water) (ppb)	9/08	No	7.4	0	15	0	Corrosion of household plumbing systems; erosion of natural deposits

## MANDATORY INFORMATION FROM THE EPA

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.

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:

- 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 stormwater 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 stormwater 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 stormwater runoff, and septic systems.
- 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.

**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 at 1-800-426-4791.**

### ABOUT LEAD

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Utilities Commission is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

## SOURCE WATER ASSESSMENT

The Florida Dept. of Environmental Protection performed an updated Source Water Assessment on our system in 2008. The assessment was conducted to provide information about potential sources of contamination in the vicinity of our wells. The susceptibility level for a portion of our system was rated moderate, with the only contaminant possibility being from a petroleum storage tank. **The majority of our system had no susceptibility for contaminants.** Results are available on the FDEP Source Water Assessment & Protection Program website at [www.dep.state.fl.us/swapp](http://www.dep.state.fl.us/swapp).

For more information about UCNSB's drinking water, please call Senior Chemist Curt McKenzie at the **"Ask Curt" Water Quality Hotline: (386) 424-3184.**