

# 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 - 8 0 0 - 4 2 6 - 4 7 9 1 .

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 byproducts 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. Immunocompromised 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 2009. 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).

# QUALITY ON TAP: 2010



Connecting You With The Quality Of A New Smyrna Beach Life

## FRESH FROM THE SOURCE!

Thank you for joining with us in pursuit of the best quality drinking water that can be provided to you. This Annual Drinking Water Quality Report, "Quality on Tap" is the result of the constant monitoring and testing that we do, as we strive to provide not only safe and dependable water, but also a refreshing blend of the best aesthetic properties you'll find, such as taste and hardness.

**We are pleased to report that the drinking water provided by UCNSB exceeds water quality standards instituted by all federal and state regulations.**

We are also pleased to report some of the fresh upgrades and approaches that were instituted in 2010:

**Water Testing:** We already test for over 80 regulated contaminants on a schedule suited to ensure quality and according to all regulations and yet have increased our efforts beginning in 2010. Because of how much we are legally required to test, we will never actually contact you personally for water testing. We are providing the best quality product available. If however you have any questions or concerns (including about testing), you may call the "Ask Curt" water quality hotline at (386) 424 - 3184.

**Distribution Improvements:** In 2010, extensive capital improvements to the pumping and water distribution system increased the ability to get fresher water to you with changes in pressure and flow that now allow faster delivery and better quality, thereby lessening the need to "flush" our system to achieve this same quality.

**Wellfield Management:** By active planning, managed rotation of well usage is improved, and monitoring of water production well quality is constantly studied. These together spread the workload on each wellfield for maximum efficiency, and keeps chloride levels, which can infiltrate overused fresh wells from brackish surrounding waters, to a minimum. This insures better tasting, fresher water and becomes more economical for production when the need for extra treatment that would be necessary is eliminated.

**Conservation:** Conserving the aquifer is top priority for the continued quality of our fresh water. Pursuing alternative water sources for future use, procuring permitting and implementing planning for additional wells, and utilizing high quality reclaimed water for major irrigation are just some of the proactive approaches the UCNSB is utilizing to move into the future. The efficient management of water quality so as to minimize flushing losses, and the committed conservation strategies of our entire community, lets us work together to ensure that future fresh water is a reality.

UCNSB is dedicated to Quality on Tap, which highlights that our water is at the heart of our community and our way of life, now and for future generations. Thank you!

*Curt McKemie*

Senior Chemist and Compliance Specialist

## HOW YOU CAN HELP CONSERVE:

### Upgrade your home.

Bring in your old 2.5 gpm (or greater) showerhead to the UC and receive a **FREE** kit containing:

- A high-performance 1.25 gpm showerhead
- A 1.5 gpm dual-spray kitchen sink aerator
- Two 1 gpm bathroom faucet aerators
- A toilet fill cycle diverter
- And more!

Just the showerhead alone will save 10,000 gallons of water and \$186 dollars annually!

### Mind the watering restrictions.

The St. Johns River Water Management District watering rules are in effect for all customers, regardless of whether you live within the city or county limits.

1. Water outdoors only when needed.
2. Irrigation is prohibited between 10 a.m. and 4 p.m.
3. Irrigation is limited to no more than two days per week on scheduled days:
  - Residential irrigation at **odd numbered addresses or no addresses is allowed on Wednesday and Saturday.**
  - Residential irrigation at **even numbered addresses is allowed on Thursday and Sunday.**
  - Non-residential irrigation is allowed on Tuesday and Friday.

### Snap to it and Get Waterwise: UC's Newest Water Conservation Program

To emphasize the beauty and easy of incorporating Florida-friendly, waterwise plants into your landscaping, the UC is encouraging our water customers to bring your waterwise garden pictures to the UC and receive a free sprinkler timer (a \$12 value). Currently the photos are on display in our lobby and on our website, [www.ucnsb.org](http://www.ucnsb.org).

For additional information: **Phone: (386) 427-1361 • 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.

# YOUR WATER'S SOURCE

The raw water supply for UCNSB is groundwater obtained from the Upper Floridan Aquifer, a very extensive underground limestone cavern through which flows quality water, that generally is unaffected by surface influences, such as storm, industrial or agricultural run-off and intrusion. This water source is so valued that many multiple companies bottle it or otherwise use it for commercial purposes. Nineteen (19) deep wells in three separate wellfields range in depth from 185 to 360 feet. In 2010, UCNSB served a monthly average 22,952 water connections within a service area of 41.3 miles and delivered over 1.7 billion gallons of treated water to our customers.

# YOUR WATER'S TREATMENT

Upon reaching the Water Treatment Facility, the water is aerated to “freshen it up” and remove any possible odors, and then lime softened to lower total hardness and alkalinity to the levels that most benefit water stability and flavor. Then it is disinfected with a mixture of chlorine and ammonia to form chloramines, a very stable and effective disinfectant. Finally, a very moderate portion of fluoride is added to promote dental health, and then it is filtered and sent to our customers

# 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.

# DEFINITIONS

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.

**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.

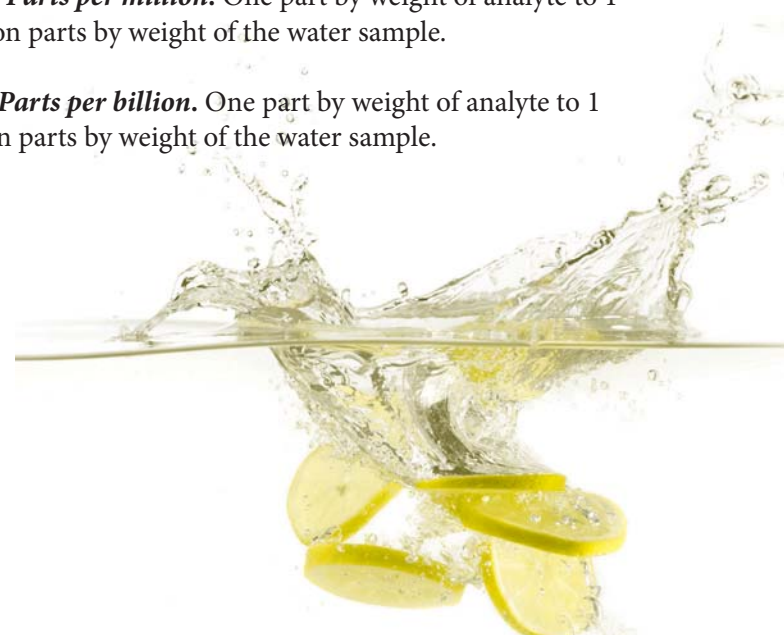
**MRDL: Maximum Residual Disinfectant Level.** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants.

**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 over 80 regulated contaminants, including induced disinfection and fluoridation, few were present. All tests results were well below allowable levels. Keep in mind that our water quality regulations are more stringent than those of bottled water.

The results below are based on our monitoring for the period of January 1 to December 31, 2010, unless otherwise noted. We are allowed to monitor for some contaminants less than once per year because their concentrations do not change frequently. Some of our data, though more than one year old, represents the most recent testing done in accordance with state and federal regulations.

If you have any questions about anything to do with drinking water, including these results, please do not hesitate to call the “Ask Curt “ water quality hotline at (386) 424 – 3184.

## INORGANIC CONTAMINANTS

Contaminant and Unit of Measurement	Date of Sampling	MCL Violation	Level Detected	Range Detected	MCLG	MCL	Likely Source of Contamination
Barium (ppm)	9/08	No	0.0053	N/A	200	200	Discharge from drilling wastes; discharge from metal refineries; erosion of natural deposits
Cyanide (ppb)	9/08	No	8	N/A	200	200	Discharge from steel/metal factories; discharge from plastic & fertilizer factories
Fluoride (ppm)	Monthly 2010	No	.46	0.14-0.86	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
Nitrate as Nitrogen (ppm)	8/10	No	0.082	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits
Sodium (ppm)	9/08	No	27	N/A	N/A	160	Salt water intrusion; leaching from soil

## STAGE 1 DISINFECTANT/DISINFECTION BY-PRODUCTS

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
Chloramines and Chlorine (ppm)	Monthly 2010	No	3.57	0.7-6.0	MRDLG=4	MRDL=4	Water additive used to control microbes
Haloacetic acids (five) HAA5 (ppb)	Quarterly 2010	No	43.5	33.6-55.2	N/A	MCL=60	By-product of drinking water disinfection
TTHM (ppb) Total trihalomethanes	Quarterly 2010	No	61.4	17.0-72.4	N/A	MCL=80	By-product of drinking water disinfection

\* For these contaminants monitored under Stage 1 D/DBP regulation 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
Copper (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
Lead (tap water) (ppb)	9/08	No	7.4	0	15	0	Corrosion of household plumbing systems; erosion of natural deposits