



## NEW SMYRNA BEACH WATER PLANT

The original water plant for New Smyrna Beach was located at 413 Smith Street before a new 10.4 million gallons/day Class A facility was constructed off Glencoe Road in 1975. The Smith Street building is currently undergoing major renovations to replace the pump station there and integrate a new 20" low pressure transmission line which will increase efficiency of service throughout the downtown and beachside areas.

# 2009 ANNUAL DRINKING WATER QUALITY REPORT

## THE SECRET IS OUT!

Thank you for taking time to read this year's Annual Drinking Water Quality Report, otherwise known as the Consumer Confidence Report. It is a shared effort between the Utilities Commission, the Florida Department of Health, and the EPA. In this report, you see the results of the constant monitoring of the water supply, as well as finding out where it comes from, how it is treated, and what it contains, in addition to some health information from the EPA.

As you can see from our presentation and photos, this year's edition celebrates an age old asset of our area – our incredible water! For generations, folks have traveled to Volusia County to take advantage of our beauty, our beaches, our weather, and to experience such natural phenomena as the nearly pure water bubbling up from Blue Springs and Ponce DeLeon Springs (once thought to be the Fountain of Youth). This is the same water that your Water Production Team brings to you at your home and business. And this is the same water that is now being bottled and marketed all over the world!

What makes this water so special? The water itself is from the Upper Floridan Aquifer, an underground river that runs through prehistoric limestone deep within the Earth. Without the direct influence of surface waters, and with hundreds of feet of sand and clay to act as filters for water on its way there from above, this water is essentially already in a drinkable state. It takes very basic actual treatment to get it to you, but in accordance with state and federal guidelines,

we test it for every regulated contaminant. As you can see from the testing results within, there are virtually no contaminants in our water.

Even though we report any substance detected at even the smallest trace levels, we are pleased to report that the drinking water provided by UCNSB exceeds water quality standards instituted by all federal and state regulations. Ironically enough, these same companies that have discovered our water and are selling it, under the auspices of the FDA, are required to do less monitoring and testing than we are, under the EPA.

For almost 20 years, the average daily water usage per person in our service area has steadily decreased, even as our population has increased. This shows our community's efforts at preserving our water supply, meaning that our customers and our employees at UCNSB are doing their part to protect our water resources, which are at the heart of our community and our way of life, for future generations. (For some tips on helping, see the sidebar to the right.)

So we hope that the next time you consider your local water, you will be thankful that the secret that we've known all along, one that's now gone global, is right here in our little town.

Thank you!

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.

### Garden Smart.

See how beautiful Florida-friendly plants can be at the UC's waterwise demonstration garden. As you replace plants damaged or destroyed by this winter's cold weather, consider planting native Florida and Florida-friendly plants—they easily tolerate our climate's alternately moist and dry conditions. Information is available on our website or in the gardens at 200 Canal Street.

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.

# 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 with depths ranging from 185 to 360 feet. In 2009, UCNSB served an average monthly 23,524 water connections within a service area of 41.3 square miles. In 2009, we delivered over 1.7 billion gallons of water to our 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, 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.

## 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.



The base of the original water tower in New Smyrna Beach, also located at the Smith St. site. The back building quite possibly held pump equipment and a well. The bricks, used as foundations in this 1927 picture, are still sometimes discovered on the property.



Tower as seen at night, decorated annually with Christmas lights by UC Electric Linemen.

*The 165-foot water tower was constructed by the Chicago Steel Company in 1950 in Old Fort Park. It held 100,000 gallons of water. In 1995, it was demolished due to extensive corrosion*

*Tower as seen from the old Wastewater Treatment Plant site on the North Causeway.*



# WATER QUALITY TEST RESULTS

Of the 80 regulated contaminants, few were present in our water. **All test results were well below allowable levels.** The UCNSB Water Resources 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 below are based on our monitoring for the period of January 1, to December 31, 2009.

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

## 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)	Monthly 2009	No	1.6%	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 2009	No	.69	0.40-.085	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>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 2009	No	3.87	0.8-5.8	MRDLG=4	MRDL=4	Water additive used to control microbes
<b>Haloacetic acids (five) HAA5</b> (ppb)	Quarterly 2009	No	45.9	28.3-46.6	N/A	MCL=60	By-product of drinking water disinfection
<b>TTHM</b> (ppb) Total trihalomethanes	Quarterly 2009	No	69.4	56.1-67.2	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

Monitoring requirements by the State for certain contaminants require testing of less than once per year. The concentration levels of these contaminants are not expected to vary significantly from year to year.

# 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:

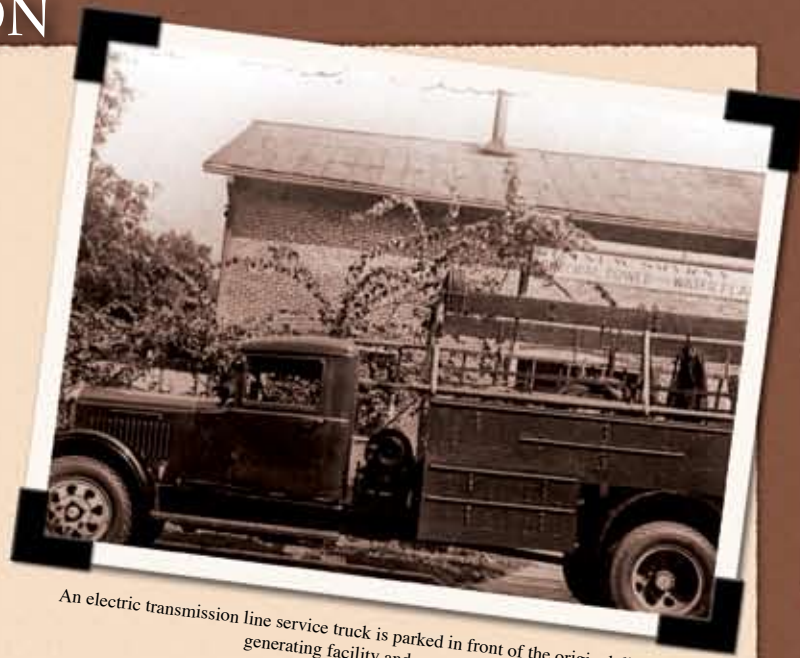
- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial 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 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**



An electric transmission line service truck is parked in front of the original diesel electric generating facility and water plant on Smith Street, circa 1940s.

**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).