Deltona North Water System's 2012 Consumer Confidence Drinking Water Report

Volusia County Utilities is very pleased to present this year's Annual Water Quality Report. This report is designed to inform you about the quality of the water and services we deliver to you every day. We want you to understand the efforts we make to provide you with a dependable and safe supply of drinking water. We are committed to ensuring the quality of your water and protecting our water resources. If you have any questions or concerns about the information provided, please feel free to call the Volusia County Utilities Operations at (386) 822-6465. You may also choose to attend a Volusia County Council meeting. These meetings are held twice a month on Thursdays with public participation at 8:30 a.m. at the Thomas C. Kelly Administration Center, 123 W. Indiana Ave, DeLand. Please visit Volusia.org for specific meeting dates.

Your Water's Source and Treatment

Here in Volusia County our primary source of drinking water is groundwater from the Floridan Aquifer. Five wells provide the Deltona North Water Treatment Plant with water. The water is aerated for carbon dioxide and hydrogen sulfide removal. Chlorine is added to keep the distribution system safe from pathogenic bacteria.

Definitions

In the Water Quality Results Table, you will find many terms and abbreviations you may not be familiar with. To help you better understand these terms, we've provided the following definitions:

Non-Detects (ND) – Means not detected and indicates that the substance was not found by laboratory analysis.

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 - One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

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

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

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

90th percentile – Ninety percent of the values were either less than or equal to the value.

Maximum Residual Disinfectant Level or 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 or 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.

Maximum Contaminant Level Goal - The "goal" (MCLG) 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.

Maximum Contaminant Level - The "maximum allowed" (MCL) 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.

Water Quality Test Results Table

Volusia County Water Resources and Utilities routinely monitors for more than 80 regulated contaminants in your drinking water according to federal and state laws, rules and regulations. As you can see by the table, laboratory analysis of our water yielded no violations of drinking water standards. All test results were well below the allowable levels. We are proud that your drinking water meets or exceeds all federal and state requirements. Except where indicated otherwise, this report is based on the most recent results of our monitoring for the period of January 1, 2012, to December 31, 2012. Data obtained before January 1, 2012, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

Contaminant & Unit of Measurement	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants							
Radium 226 (pCi/L)	03/2011	No	0.5	Not Applicable	0	5	Erosion of natural deposits
Radium 228 (pCi/L)	03/2011	No	1.0	Not Applicable	0	1	Erosion of natural deposits
Inorganic Contaminants							
Barium (ppm)	2/22/2011	No	0.012	Not Applicable	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	2/22/2011	No	0.5	Not Applicable	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Selenium (ppb)	2/22/2011	No	0.76	Not Applicable	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Arsenic (ppb)	2/22/2011	No	1.3	Not Applicable	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Antimony (ppb)	2/22/2011	No	0.61	Not applicable	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Nitrate (as Nitrogen) (ppm)	2/2012	No	0.57	Not Applicable	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	2/22/2011	No	44	Not Applicable	Not Applicable	160	Salt water intrusion, leaching from soil

Contaminant & Unit of Measurement	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Lead and Copper (Tap Water)							
Copper (tap water) (ppm)	7/25/2011	No	0.34	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	7/25/2011	No	5	1	0	15	Corrosion of household plumbing systems, erosion of natural deposits
Disinfectant or Contaminant and Unit of Measurement	**Dates of sampling (mo./yr.)**	**MCL or MRDL Violation Yes/No**	**Level Detected**	**Range of Results**	**MCLG or MRDLG**	**MCL or MRDL**	**Likely Source of Contamination**
Stage 1 Disinfectants and Disinfection By-Products							
Chlorine (ppm)	01/2012 – 12/2012	No	1.4	0.6 – 2.0	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	8/01/2012	No	10.0	Not Applicable	Not Applicable	60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	8/01/2012	No	72.7	Not Applicable	Not Applicable	80	By-product of drinking water disinfection

Mandatory Information Provided by the EPA

To ensure that tap water is safe to drink, the EPA prescribes regulations that 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 that must provide the same protection for public health. Any and 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.

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.

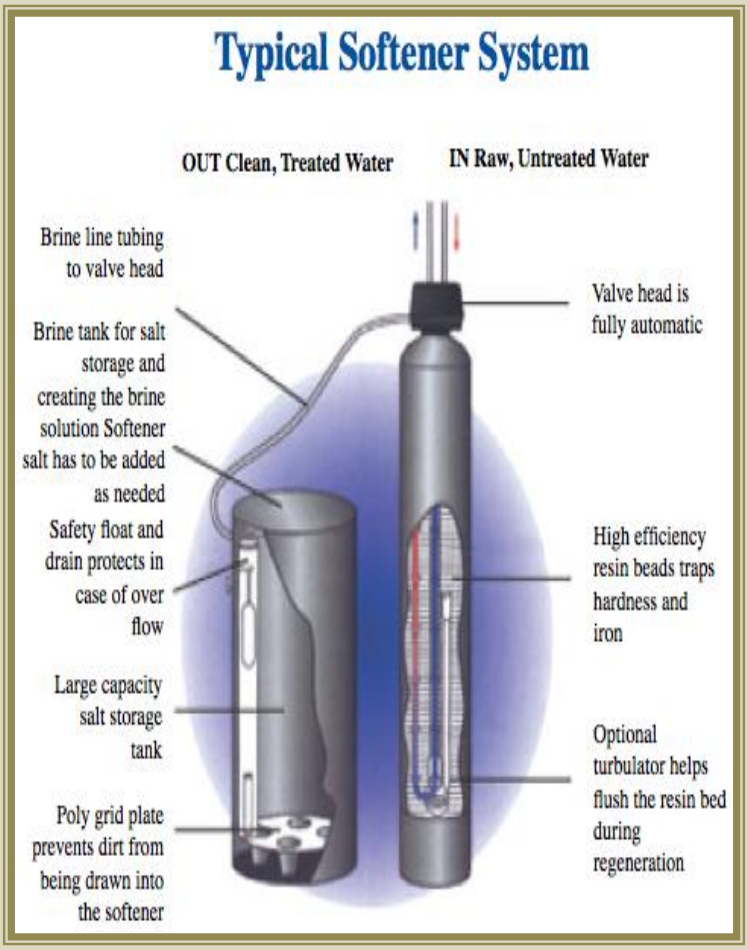
Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Health Advisory: 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).

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. Volusia County Utilities 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 two 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 reduce exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Source Water Assessment and Protection Program, or SWAPP, was created to protect our vital resources. SWAPP is meant to ensure that your drinking water is safe, not just at the tap, but at its source. The Department of Environmental Protection performed a Source Water Assessment on the Deltona North water system in 2012. There were no sources of potential contamination identified for this system. The assessment results are available on the FDEP SWAPP website at http://www.dep.state.fl.us/swapp.



Water softeners operate on a simple principle: Calcium and magnesium ions in the water switch places with more desirable ions, usually sodium. The exchange eliminates two of the problems of hard water because sodium doesn't precipitate out in pipes or react badly with soap.

Water softeners require regular maintenance to ensure reliable operation. This maintenance can be performed by a contracted company or by the homeowner. There are several websites for the Do-It-Yourselfer with step by step help instructions.

One common occurrence that can cause high water bills at your home is a water softener that is stuck in its regeneration mode. This condition allows a constant flow of water through the softener. If this occurs, the best short term solution is to unplug or place the softener in by-pass mode. This will stop the flow of water until permanent repairs can be performed.