

A close-up photograph of water being poured from a tap into a clear glass. The water is captured in mid-pour, creating a dynamic splash with many bubbles and droplets. The background is a bright blue sky with soft, white clouds.

2013 Water Quality Annual Report

City of Tallahassee
Your Own Utilities™



Providing the highest quality
water for over 100 years.

Who We Are

Underground Utilities is part of the City of Tallahassee Utilities and provides water, wastewater, stormwater and natural gas services throughout the Tallahassee area. Our goal is to provide customers with the best service possible and to set the standard for excellence in all that we do.



Water Quality Testing



Water Main Repair



Water Meter Repair



Water Main Repair



Water Meter Repair

City of Tallahassee
Your Own Utilities



A Passion for Clean Water

Yes, it is our job to make sure our water supply is clean...but keeping it clean is more than just a job, it's our passion!

Living on top of the most amazing underground water supply in North America has a profound effect on how we look at our job. All of our drinking water comes from this remarkable source, the Floridan Aquifer, and it is important to understand that it is one of the largest and cleanest underground water systems anywhere in the world.

And we want to keep it that way.

As **YOUR OWN UTILITIES**, we are passionate about making sure that surface water (water that comes from rain and runoff) is properly managed and cleaned before it makes its way into this aquifer. Whether it's runoff from roads, lawns or farms, we work every day to make sure that pollutants and other impurities don't make their way into our water supply. We continuously monitor, measure and test local surface water systems – such as holding ponds and small community lakes – to ensure they are doing their job of keeping our drinking water, in the Floridan Aquifer, as clean as possible.

Our passion for keeping your drinking water clean has not gone unnoticed.

The most recent Florida Department of Environmental Protection audit noted that YOUR OWN UTILITIES has demonstrated a “sense of ownership and pride” in the water system and that our facilities and wells were so clean and well-maintained, “they even seem to sparkle.”

Passion often yields superior results.

Fortunately for our community, we have a remarkable natural source of water to sustain our water supply for generations to come. And with your continued support and cooperation, together we will work – with a passion – to ensure it stays that way.



Sincerely,

A stylized, handwritten signature in black ink, appearing to read 'Mike Tadros'.

Mike Tadros

*General Manager, Underground Utilities
City of Tallahassee Utilities*

Protecting Tallahassee's Water Starts with You

Water Protection

Our drinking water supply comes from the Floridan Aquifer and the water soaking into the ground on your property naturally replenishes it. Keeping rainwater in your yard by using rain barrels and rain gardens reduces the amount of stormwater runoff and pollutants that are carried through your streets to our lakes and streams. Reducing stormwater runoff means reducing pollution.

Proper Fertilizer Use

Continue to protect your water supply by choosing to fertilize your lawns sparingly and following the practices outlined in the City of Tallahassee's fertilizer ordinance. Using the required spreader deflector shield near bodies of water and impervious surfaces (such as compacted soil, sidewalks and asphalt) and not fertilizing during the prohibited

application periods (tropical weather watches and warnings) can help save millions of dollars on cleanup efforts.

Two of the main ingredients in fertilizer, nitrogen and phosphorus, are the primary nutrients that cause pea-green algae blooms in your local lakes and streams. Nitrogen helps make plants green and grow. Phosphorus helps plants flower and fruit. Typically, you don't need phosphorus in lawn fertilizer because Leon County soils already contain an adequate amount for lawns. We recommend that you choose lawn fertilizer with a ZERO in the middle of the three-number sequence



(no phosphorus). Call 891.4YOU (4968) or visit the Think About Personal Pollution (TAPP) website at www.TAPPwater.org to get the Water Friendly Yard Guide and other helpful information for maintaining your yard and protecting your local waters.

Preventing Pollution

Clean water is essential to the public health and economic prosperity of a community. One of Tallahassee's assets is an abundant supply of fresh water. We are fortunate to live above one of the largest and cleanest sources of ground water in the world – the Floridan Aquifer. However, even the cleanest water supply can become degraded, and we need your help



to preserve its high quality. Pollution prevention is the most effective and least costly way to protect our drinking water.

Keeping potential contaminants such as fertilizer and sediment off the streets helps to ensure they don't travel to the nearest pond or stream. The phosphorus in our soils feeds the algae in the lakes and streams, and sediment clogs storm drains.

A process called percolation allows Florida's abundant rainfall to seep in the soil and replenish the large volumes of water that flow in the aquifer and out of local springs. The water eventually saturates the underlying limestone in much the same way water fills the tiny holes of a sponge.

Anything you put on the ground can impact our water resources, so your efforts make a huge difference. The more you minimize erosion and keep the dirt on your property, the less we will need to clean it out

of storm drains, ditches and ponds. If you have stormwater or drainage issues around your home, call 891.4YOU (4968) or visit Talgov.com/YOU to see if the Onsite Stormwater Mitigation Loan Program can help you.

Businesses Leading by Example

Businesses that keep their properties clean are doing their part in the community to minimize the exposure of contaminants and chemicals to the environment. The City oversees two regulatory programs, the National Pollutant Discharge Elimination System (NPDES) and the Leon County Aquifer Protection Program to ensure that businesses are following best management practices, including





reporting spills properly and adhering to regulations that help protect local lakes, streams, springs and the Floridan Aquifer.

Construction project managers are leading by example and implementing the proper sediment and erosion control practices that prevent sediment and muddy water from flowing into the stormwater system and to our water resources. Construction projects must follow state and local growth management regulations that protect water resources.

Proper Waste Disposal

Illegal waste disposal can have a tremendous impact on the quality of our City's water. Fortunately, the City of Tallahassee receives only a few reports of illegal discharges, dumping or connections each year. However, these activities, whether intentional or accidental, can introduce pollutants to the City's stormwater system and pose a greater than normal risk to your water resources. Please report any illicit activities you may see by calling 891.4YOU.

When you dispose of solid and hazardous waste properly and refrain

from pouring fats, oils and grease down the drain, you help avoid costly repair and cleanup costs. Improper disposal of hazardous waste allows materials to enter the environment untreated and are potentially harmful to people, water quality and wildlife. Sewer pipes can become clogged from Fats, Roots, Oils and Grease (F.R.O.G.) and then overflow, releasing untreated sewage on and into the ground. Please help minimize these environmental and public health hazards by following the Do's and Don'ts provided on the hazardous waste and F.R.O.G. sections on Talgov.com/YOU.



Visit The Links Below To Learn More.

Think About Personal Pollution

tappwater.org

Fertilizer Ordinance

Talgov.com/Uploads/Public/Documents/you/learn/library/documents/fertilizerordinance.pdf

Onsite Stormwater Mitigation Loan Program

Talgov.com/Uploads/Public/Documents/you/learn/library/documents/stormwater_loan_booklet.pdf

Pollutant Discharge Elimination System

Talgov.com/Uploads/Public/Documents/you/learn/library/documents/illicit_discharge.pdf

Aquifer Protection Program

Talgov.com/Uploads/Public/Documents/you/learn/library/documents/aquifer_protection_code_2007.pdf

Talgov.com/you/you-learn-utilities-water-aquifer-protection.aspx

F.R.O.G.

Talgov.com/you/you-learn-water-frog.aspx

Hazardous Waste

Talgov.com/you/you-learn-solid-hazwaste.aspx#programs



Water Resources

The Floridan Aquifer

Tallahassee is situated over one of the largest and cleanest sources of ground water in the world – the Floridan Aquifer. The Floridan Aquifer underlies all of Florida and parts of Alabama, Georgia and South Carolina. Our water supply comes from twenty-seven deep wells drilled into the aquifer and operated by the City's Underground Utilities. As the water is pumped from the wells to the distribution system, chlorine is added for disinfection and fluoride for dental health. At a few central Tallahassee wells, water is passed through granulated activated carbon filter units to remove certain chemicals found in the aquifer in those locations. Green sand filtration is also used at one northwest area well to remove iron and manganese.

Water Quality

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:

- (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 our 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.



Protection Programs

In 2012, 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 20 potential sources of contamination identified for this system with low to moderate susceptibility levels. However, the City's Underground Utilities has been at the forefront of innovative protection activities for many years. In 1992, we were one of the first municipalities in the Southeast to institute a countywide Aquifer Protection Program. This helps ensure that potential pollutants are not discarded into the environment. The assessment results are available on the FDEP Source Water Assessment and Protection Program Website at www.dep.state.fl.us/swapp, or they can be obtained by contacting the Water Quality Division at 891-1200.

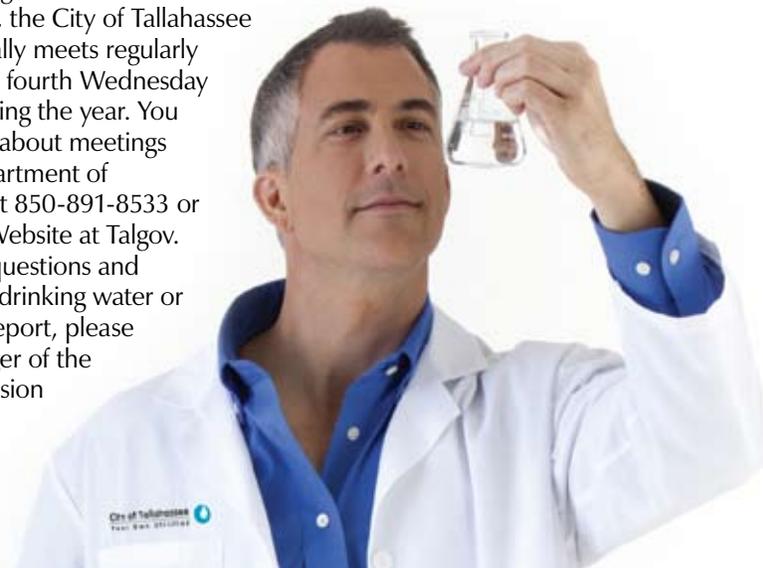
The City of Tallahassee routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2012. Data obtained before January 1, 2012, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

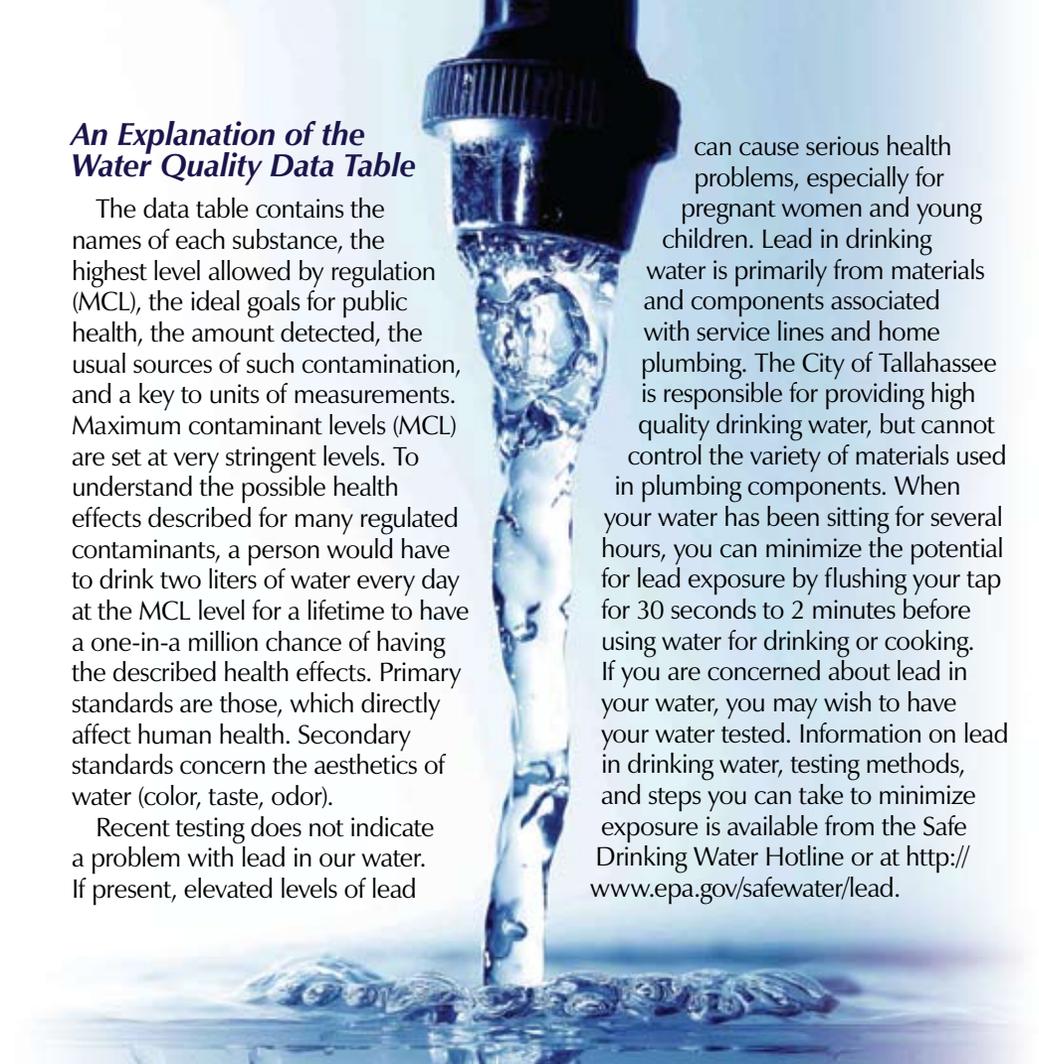
For citizen input, the City of Tallahassee Commission typically meets regularly on the second and fourth Wednesday of each month during the year. You can find out more about meetings by calling the Department of Communications at 850-891-8533 or visiting the City's Website at Talgov.com. For specific questions and information about drinking water or for a copy of this report, please contact the Manager of the Water Quality Division

at 850-891-1200. Copies of this report may also be downloaded from the City's Website at Talgov.com.



ENERGY SMART PLUS™
SAVE ENERGY SAVE WATER SAVE MONEY





An Explanation of the Water Quality Data Table

The data table contains the names of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the usual sources of such contamination, and a key to units of measurements. Maximum contaminant levels (MCL) are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink two liters of water every day at the MCL level for a lifetime to have a one-in-a million chance of having the described health effects. Primary standards are those, which directly affect human health. Secondary standards concern the aesthetics of water (color, taste, odor).

Recent testing does not indicate a problem with lead in our water. 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 City of Tallahassee 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>.

Immuno-Compromised Persons

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).

DEFINITIONS & ABBREVIATIONS

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

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 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 risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

ND - Not Detected: Indicates that the substance was not found by laboratory analysis.

ppm - 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.

ppb - Parts per billion (ppb) or Micrograms per liter (ug/l): one part by weight of analyte to 1 billion parts by weight of the water sample.

pCi/L - Picocurie per liter: measure of the radioactivity in water

IDSE - Initial Distribution System Evaluation: An important part of the Stage 2 Disinfection Byproducts Rule (DBPR). The IDSE is a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.

Water Quality Table

Microbiological Contaminants

Contaminant and Unit of Measure	Dates of Sample (mo/yr)	MCL Violation (Y/N)	Highest Monthly Percentage of Positive Samples	Max. Contaminant Level Goal (MCGL)	Max. Contaminant Level (MCL)	Likely Sources of Contamination
Total Coliform Bacteria	01/12-12/12	N	1%	0	For systems collecting at least 40 samples per month; presence of coliform bacteria in more than 5% of monthly samples	Naturally present in the environment

Lead and Copper (Tap Samples)

Contaminant and Unit of Measure	Dates of Sample (mo/yr)	AL Exceeded Y/N	90th Percentile Result	No. of Sampling Site Exceeding the AL	Max. Contaminant Level Goal (MCLG)	AL (Action Level)	Likely Sources of Contamination
Copper (ppm) (Tap Sample)	06/11-09/11	N	0.65	0 out of 50	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb) (Tap Sample)	06/11-09/11	N	3	0 out of 50	0	15	Corrosion of household plumbing systems; erosion of natural deposits

Volatile Organic Contaminants

Contaminant and Unit of Measure	Dates of Sample (mo/yr)	MCL Violation Y/N	Level Detected	Range of Results	Max. Contaminant Level Goal (MCLG)	Max. Contaminant Level (MCL)	Likely Sources of Contamination
Tetrachloroethylene (ppb)	05/11-11/12	N	0.85	ND - 0.85	0	3	Discharge from factories and dry cleaners

Inorganic Contaminants

Contaminant and Unit of Measure	Dates of Sample (mo./yr)	MCL Violation Y/N	Highest Level Detected	Range of Results	Max. Contaminant Level Goal (MCLG)	Max. Contaminant Level(MCL)	Likely Sources of Contamination
Barium (ppm)	01/11-09/11	N	0.017	0.006-0.017	2	2	Discharge of drilling wastes: discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	01/11-09/11	N	1.8	ND - 1.8	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Cyanide (ppb)	01/11-09/11	N	5.4	ND - 5.4	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride (ppm)	01/11-09/11	N	1.31	0.68 - 1.31	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels 0.7 ppm
Lead (point of entry)(ppb)	01/11-09/11	N	1.8	ND - 1.8	0	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Nitrate (as Nitrogen) (ppm)	01/12-09/12	N	0.69	ND - 0.69	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	01/12-09/12	N	0.01	ND - 0.01	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	01/11-09/11	N	6	2.3 - 6	NA	160	Salt water intrusion; leaching from soil

Radioactive Contaminants

Contaminant and Unit of Measure	Dates of Sample (mo/yr)	MCL Violation Y/N	Highest Level Detected	Range of Results	Max. Contaminant Level Goal (MCLG)	Max. Contaminant Level (MCL)	Likely Sources of Contamination
Alpha Emitters (pCi/L)	05/08-12/08	N	3.26	ND - 3.26	0	15	Erosion of natural deposits
Radium 226 +228 or Combined Radium (pCi/L)	05/08-12/08	N	1.49	ND - 1.49	0	5	Erosion of natural deposits

Stage 1 Disinfectants and Disinfection By-Products (D/DBP)

Disinfectant or Contaminant and Unit of Measure	Dates of Sample (mo/yr)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Sources of Contamination
Chlorine (ppm)	01/12-12/12	N	0.8	0.76 - 0.98	MRDLG=4	MRDL=4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	08/11	N	2.4	ND - 5.9	NA	MCL=60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	08/11	N	7.9	0.45 - 22.8	NA	MCL=80	By-product of drinking water disinfection

Stage 2 Disinfectants and Disinfection By-Products (D/DBP)

Disinfectant or Contaminant and Unit of Measure	Dates of Sample (mo/yr)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Sources of Contamination
Haloacetic Acids (five) (HAA5) (ppb)	4/12-12/12	NA*	NA	ND - 5.55	NA	MCL=60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	4/12-12/12	NA*	NA	0.76 - 19.8	NA	MCL=80	By-product of drinking water disinfection

*Compliance determined after four quarterly samples.

City of Tallahassee
Your Own UtilitiesSM



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