2009

water quality

annual report | City of Tallahassee

a letter

for you

We are pleased to present you this year's Water Quality Annual Report. For over a century, the City of Tallahassee has been providing you with **safe and dependable drinking water** — and this year is no different. Each year, the City mails this report to our customers in response to provisions of the U.S. Environmental Protection Agency's Safe Drinking Water Act. It is designed to inform you about the quality of your water and the services we deliver to you every day.

Also known as the Consumer Confidence Report, this Federally mandated publication describes the source of our water, lists the results of our tests and contains important information about drinking water and health.

We are committed to ensuring the quality of your water. We want you to understand the efforts we continuously make in order to improve the treatment process, as well as our efforts to protect and conserve this precious resource. As such, we are pleased to let you know that your drinking water **not only meets *all* State and Federal standards, but was also voted Best Tasting Drinking Water in Florida!**

The City is deeply committed to providing the cleanest and best tasting water possible, while also taking every step possible to protect our environment. From innovative technology to award-winning facilities, the City remains a national leader in the water industry.

We trust you will find this information useful and hope you will find it equally interesting.

Sincerely,

Mike Tadros
General Manager, Underground Utilities

City of Tallahassee

Your Own Utilities℠

... more than just the best tasting water in Florida.

underground utilities

who we are

In an effort to expand upon and improve our service to you, the City of Tallahassee recently reorganized our utility departments. Water, wastewater, natural gas, and stormwater management are all under one consolidated department now known as "Underground Utilities".

While there are many good ways to structure our services, we felt this was best because it allows us the ability to **best serve you.** If it is underground or if it goes underground, chances are we deal with it. From running natural gas lines, to wastewater treatment and underground drainage, it now falls under one area.

Drinking Water. It is our job to ensure that the water coming from your faucet is clean, healthy and reliable. With rigorous testing and constant facility improvements, reports show that our drinking water meets all State and Federal Standards. We are also proud that the American Water Works Association recently named our water as the Best Tasting in Florida.

Wastewater Collections and Treatment. Where does your water go when you are done with it? Each day we collect, process and treat more than 22 million gallons of wastewater and return it to the environment in a responsible manner. In fact, we are in the process of upgrading our wastewater treatment facility to a standard that will put Tallahassee at the forefront of environmental protection.

Stormwater. Summer storms should not mean excessive flooding or pollution of our lakes and groundwater. It is our job to make sure that downpours don't jeopardize public safety or cause flooding. From managing public drains to ensuring the holding ponds are safe and effective, we work to reduce the risk of flooding and improve water quality.

Natural Gas. Natural gas provides the comfort and convenience families want, while giving them the confidence of a dependable, economical fuel source that is environmentally friendly. It is the natural choice for your heating and cooking needs.

Underground Utilities is part of **Your Own Utilities.** We are at your service and we are working every day to bring you the safest and cleanest drinking water possible.

conservation

Did you know that only 1 percent of water on our planet is readily available for drinking? That's because only 3 percent of the world's water is fresh water rather than salt water; and of that amount, icecaps and glaciers account for two thirds.

Fortunately, our region has a sufficient supply of drinking water underground in the Floridan Aquifer. To preserve this vital resource, your Water Utility encourages you to take measures to conserve and protect it.

A typical household uses approximately 9,000 gallons per month or 108,000 gallons per year. That's enough water to fill a bathtub more than 2,500 times! More than half of this usage occurs in the bathroom--from toilets (24 percent), baths (9 percent) and showers (21 percent). Bathroom faucet leaks add another 5 percent, so the total amounts to much more than just a drop in the bucket. Also, washing machines use a substantial amount of water (or 22 percent of the total).

water savings tips

- A slow drip from a single faucet (you know that one you've put off fixing) adds up to about 170 gallons of water a month. Enough water that if your car ran on water, it would be enough fuel for you to drive from Tallahassee to California...and back!
- By just cutting off a couple of minutes from your daily shower, you would save enough water in a year for 3 months of free showers. So, just turn it off a little sooner.
- When you water your lawn in the middle of a warm summer day, up to 60 percent evaporates into thin air. Gone. Wasted. The best time to water is early in the day.

These simple measures, combined with other water-saving techniques, will protect our precious resources for the future. For more information, please visit the City's Web site at **Talgov.com** or call 850-891-4YOU (4968).

save with

energy smart

save energy, save water, save money

What is e+? It's "Energy Smart," plus a whole lot more. It is our commitment to our customers and our community to provide programs, easy to use tools, technology and information to save energy, save water and save money.

e+ stands for energy smart conservation and efficiency, environmental stewardship, education, exceptional customer service, expanding technology and economic responsibility. Take advantage of these programs to start saving money today:

- Residential Ceiling Insulation Grants
- Natural Gas Appliance Rebates
- Energy Star Heat Pump/Air Conditioning
- Energy Star Appliance Rebates
- Energy Star Certified Home Rebates
- Solar Water Heater Rebates
- Low Interest Loans for Energy Efficiency
- Solar Net Metering
- Discounted Compact Fluorescent Lamps (CFL)
- Free Energy Audits
- Energy Retrofit Grants

consider switching to natural gas

Natural gas is one of the most affordable, clean and efficient fuels you can use and our rebate program makes it hard to resist this environmentally friendly fuel. Whether switching from another fuel, remodeling and adding new appliances, or just updating older, less efficient appliances, these natural gas rebates are worth a look:

• Furnace	$700	• Clothes Dryer	$200
• Water Heater	$675	• Outdoor Grill	$100
• Pool/Spa Heater	$450	• Outdoor Lights	$50
• Range	$200	• Fireplace Logs	$50

combine a water heater, furnace and range or dryer and get a $2,000 rebate!

If you are interested in hearing more about this fuel and your potential savings, please visit our Web site **Talgov.com** or call 850-891-4YOU and select 1, then 4.

about

ems environmental management system

what is an ems?

Underground Utilities continues to act on the Citywide commitment to environmental stewardship. Increasing demands from customers and regulatory agencies make it more important than ever for utilities to use state-of-the-art approaches to manage how they affect the environment. Since 2005, the City of Tallahassee has participated in the Environmental Management System (EMS) program, focusing on the water and wastewater operations of the City.

An EMS provides a structured approach to manage operations to improve environmental performance and helps utilities identify more efficient ways to operate and reduce unnecessary risks and costs.

Since becoming the first such utility in Florida to be certified to the EMS standard, the Wastewater Treatment Division has seen a number of enhancements:

- Increased environmental awareness at all levels of organization
- Reduced chemical usage
- Enhanced emergency plans
- Enhanced safety awareness
- New recycling programs
- Enhanced environmental requirements for contractors
- Pollution prevention and cost savings

The EMS program is now being developed and implemented for the Water Quality Division and the Wastewater Collections operations of Underground Utilities with certification anticipated in 2010. To learn more about this exciting program please contact Ms. Koren Taylor at 850-891-8703.

stormwater and

tapp think about personal pollution

what is tapp?

The Water Resources Engineering, Stormwater Management Group of Underground Utilities delivers projects designed to control flooding, improve water quality and protect the Floridan Aquifer, our area's source of drinking water. Additionally, Stormwater Management also administers a pollution prevention effort to reduce pollutants at their source. Think About Personal Pollution (TAPP) is a public information and outreach campaign that has been implemented to improve stormwater runoff and protect aquifer recharge by educating residents about how making small personal changes in home and yard practices can reduce the amount of stormwater runoff and lead to cleaner lakes, streams, and groundwater. To schedule a seminar for your neighborhood or request information, call 850-891-6806 or visit www.TAPPwater.org.

tapp tips

- Slow the flow of water from your yard by planting a rain garden.
- Maintain your yard: prevent sediment and lawn chemicals from reaching lakes and sinkholes to the aquifer by planting fast-growing annual and perennial grasses, and mulching bare areas in your yard.
- Use a rain barrel to capture and store runoff from your roof for watering plants.
- When choosing a lawn fertilizer look for a slow release or water insoluble nitrogen product. Fertilize only if needed and remember, "less is best" for the aquifer. No phosphorus, (15-0-15) keeps grass just as green and our waters clean.

data table an explanation

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).

Microbiological Contaminants

Contaminant and Unit of Measure	Dates of Sampling (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	01/08-12/08	N	4%	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 Water)

Contaminant and Unit of Measure	Dates of Sampling (mo/yr)	AL Violation 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)	06/07-09/07	N	0.688	0 out of 52	1.3	1.3	Corrosion of household plumbing systems;erosion of natural deposits;leaching from wood preservatives
Lead (ppb) (Tap Sample)	06/07-09/07	N	2.3	0 out of 52	0	15	Corrosion of household plumbing systems;erosion of natural deposits

Inorganic Contaminants

Contaminant and Unit of Measure	Dates of Sampling (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
Arsenic (ppb)	02/08-10/08	N	1.8	ND - 1.8	NA	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	02/08-10/08	N	0.0173	0.001 - 0.0173	2	2	Discharge of drilling wastes: discharge from metal refineries; erosion of natural deposits
Beryllium (ppb)	02/08-10/08	N	0.1	ND - 0.1	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	02/08-10/08	N	0.1	ND - 0.1	5	5	Corrosion of galvanized pipes; erosion of natrual deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium (ppb)	02/08-10/08	N	2.5	ND - 2.5	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride (ppm)	02/08-10/08	N	1.27	0.69 - 1.27	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm
Lead (point of entry) (ppb)	02/08-10/08	N	1.8	ND - 1.8	NA	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing and solder
Nitrate (as Nitrogen) (ppm)	02/08-10/08	N	0.6	0.021 - 0.6	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	02/08-10/08	N	4.88	2.33 - 4.88	NA	160	Salt water intrusion; leaching from soil

Radiological Contaminants

Contaminant and Unit of Measure	Dates of Sampling (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

Volatile Organic Contaminants

Contaminant and Unit of Measure	Dates of Sampling (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
Tetrachloroethylene (ppb)	01/08-10/08	N	0.95	ND - 1.02	0	3	Discharge from factories and dry cleaners

Stage 1 Disinfectant/Disinfection By-Product (D/DBP)

Disinfectant or Contaminant and Unit of Measure	Dates of Sampling (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)	01/08-12/08	N	0.78	0.74 - 0.82	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	08/08	N	0.58	ND - 3.5	NA	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	08/08	N	8.13	0.3 - 23	NA	MCL = 80	By-product of drinking water disinfection

Data Table Key, Definitions & Abbreviations

AL	Action Level	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
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.
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.
p Ci/L	Picocurie per liter	The measure of the radioactivity in water.
ND	Not Detected	Indicates that the substance was not found by laboratory analysis.
NE	Not Established	Indicates that the substance does not have an established level or contamination source.
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.

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, 2008. Data obtained before January 1, 2008, 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 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 Web site 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 Web site at **Talgov.com.**

ensuring

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 stomwater 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.

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 27 deep wells drilled into the aquifer and operated by the City Water Utility. 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 NW area well to remove iron and manganese.

Protection Programs – In 2008, 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 56 potential sources of contamination identified for this system with moderate to high susceptibility levels. However, the City's Water Utility 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 Web site at www.dep.state.fl.us/swapp, or they can be obtained by contacting the Water Quality Division at 891-1200.

Cross Connection Control – Clean, safe drinking water. It is something we take for granted, but every home may have potential hazards which threaten to contaminate our drinking water. The City of Tallahassee's Cross Connection Control Program inspects, monitors and tracks the installation of required backflow prevention assemblies at sites that could be the source of contamination. Backflow prevention assemblies can be found on water lines serving sprinkler systems, swimming pools, pressure booster pumps and many commercial plumbing fixtures. Each assembly must be tested when installed or repaired and annually thereafter to ensure it is operating properly.

City of Tallahassee
Your Own Utilities℠

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