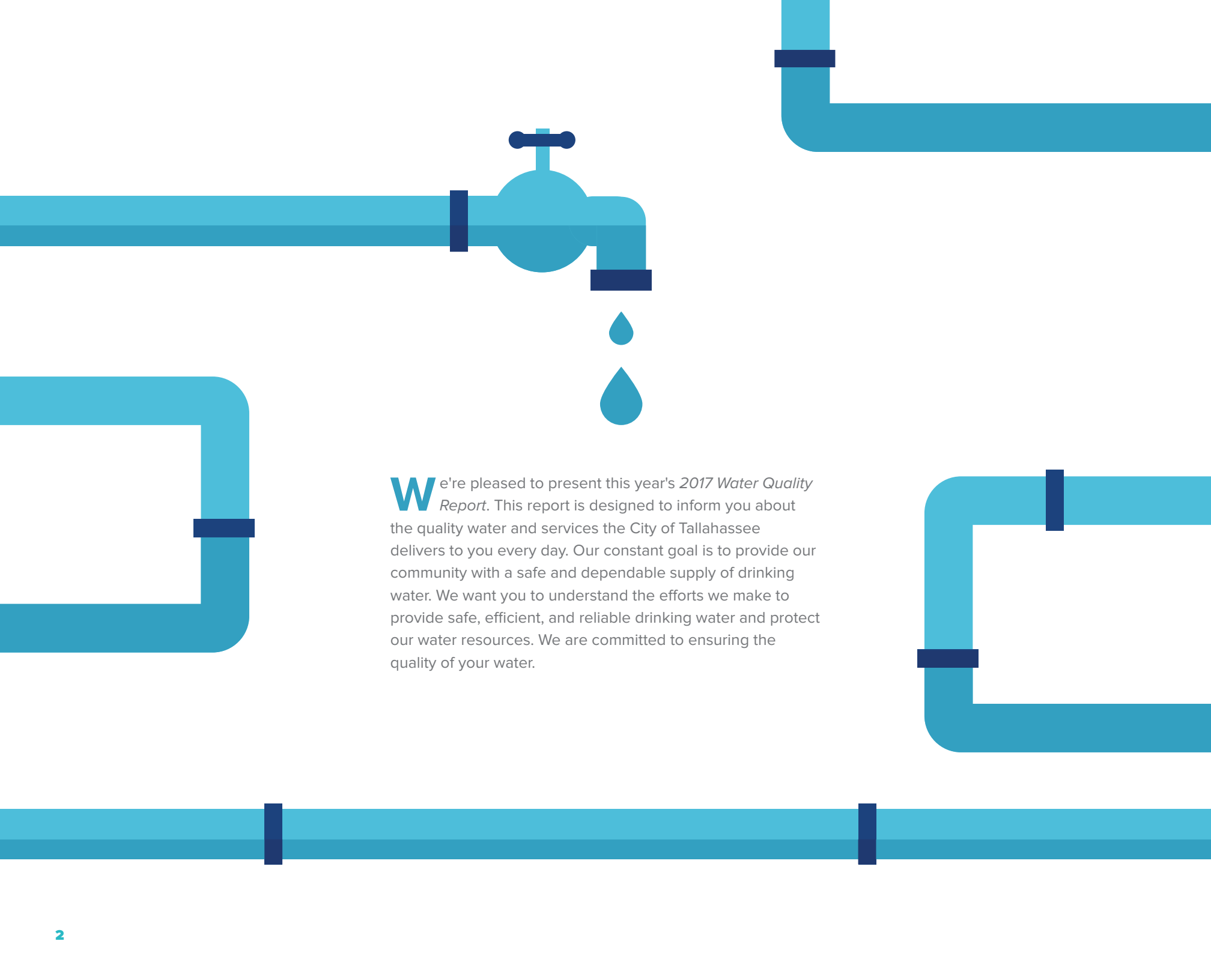


2017 CITY OF
TALLAHASSEE

WATER QUALITY REPORT

City of Tallahassee
Your Own UtilitiesSM





We're pleased to present this year's *2017 Water Quality Report*. This report is designed to inform you about the quality water and services the City of Tallahassee delivers to you every day. Our constant goal is to provide our community with a safe and dependable supply of drinking water. We want you to understand the efforts we make to provide safe, efficient, and reliable drinking water and protect our water resources. We are committed to ensuring the quality of your water.



WATER

Fresh water is the source for all life on this planet. It unifies our world and makes our Earth unique among every other known planet.

As stewards of this planet, we must work together to protect this precious resource for the preservation of life both now and into the future.



A MESSAGE FROM THE GENERAL MANAGER

Water is vital to the economic and ecological health and well-being of the citizens in Leon County. Our geographic location atop the Floridan Aquifer – the largest magnitude of fresh water springs in the world – provides us with a source of abundant drinking water that is of exceptional quality and must always be protected.

At the City of Tallahassee's Underground Utilities and Public Infrastructure Department, we embrace the challenge of delivering safe, sustainable, and affordable water services to the more than 170,000 residents of Tallahassee. It's this focus and level of expertise that earns Tallahassee the recognition of being the leader in water

services. We continually challenge our team to seek innovation in our daily work for the betterment of customer services and the protection of the environment around us.

Our *2017 Water Quality Report* describes, with clarity and detail, the quality of the City's drinking water. Test results on the City's water consistently show that regulated components of drinking water are either not detected or are present in amounts far below limits permitted by the Florida Department of Environmental Protection, the U.S. Environmental Protection Agency, and the Florida Department of Health.

This dedication to exceeding standards, in addition to our natural resource availabilities, has resulted in winning the regional title of "2017 Best Tasting Drinking Water" by the Florida Section of the American Water Works Association for the third consecutive year.

The preservation of our water is a two-fold process and involves a mutual collaboration between our City and its citizens. While it is our pledge to deliver quality and reliable water

services, we also rely on our citizens to be an active part of the water cycle. On pages 13 and 14 of our *2017 Water Quality Report*, you will find information on being a well-versed environmental steward. These pages are meant to be taken out of your book for you to keep and reference. Our goal is to ensure that every member in our community is "water-wise" and embracing their part in preserving our natural water resources.

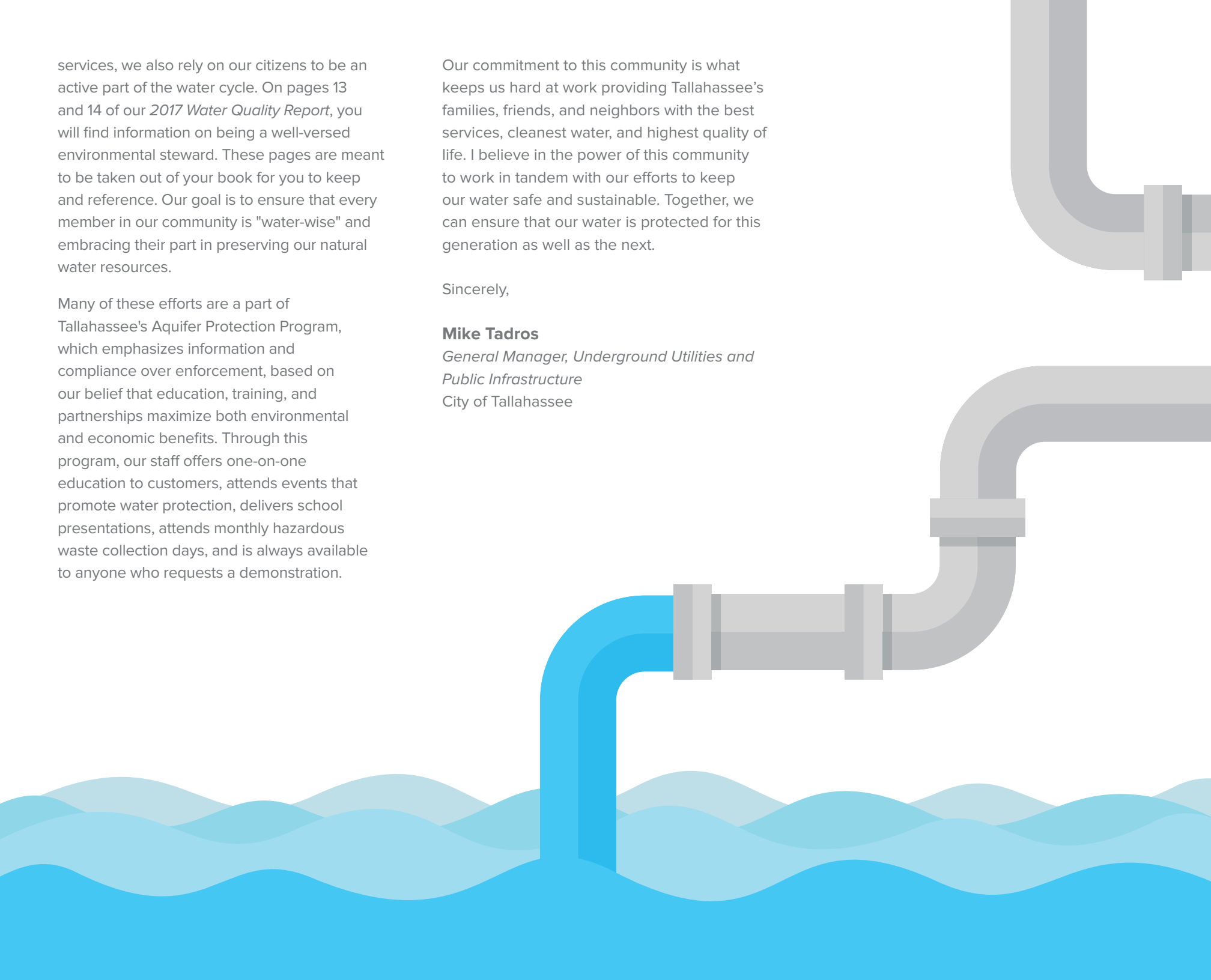
Many of these efforts are a part of Tallahassee's Aquifer Protection Program, which emphasizes information and compliance over enforcement, based on our belief that education, training, and partnerships maximize both environmental and economic benefits. Through this program, our staff offers one-on-one education to customers, attends events that promote water protection, delivers school presentations, attends monthly hazardous waste collection days, and is always available to anyone who requests a demonstration.

Our commitment to this community is what keeps us hard at work providing Tallahassee's families, friends, and neighbors with the best services, cleanest water, and highest quality of life. I believe in the power of this community to work in tandem with our efforts to keep our water safe and sustainable. Together, we can ensure that our water is protected for this generation as well as the next.

Sincerely,

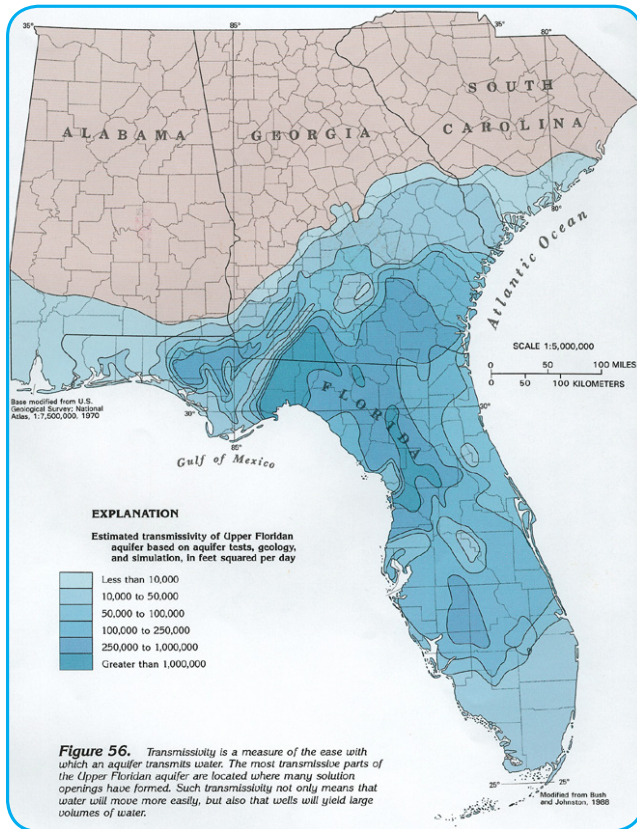
Mike Tadros

General Manager, Underground Utilities and Public Infrastructure
City of Tallahassee



TALLAHASSEE'S WATER: SOURCE, TREATMENT, AND DISTRIBUTION

For more than 100 years, the City of Tallahassee has provided our community with clean, reliable, and safe drinking water. Here's a look at how it works.



WHERE DOES OUR WATER COME FROM?

Tallahassee sits on top of one of the largest and most abundant sources of ground water in the world – the Floridan Aquifer. The Floridan Aquifer underlies all of Florida as well as parts of Alabama, Georgia, and South Carolina, covering an area of nearly 100,000 square miles. The Floridan Aquifer system provides water for several large cities including Savannah and Brunswick in Georgia; and Jacksonville, Tallahassee, Orlando, and St. Petersburg in Florida. Currently, 27 deep wells drilled directly into the Floridan Aquifer provide Tallahassee customers with more than 25 million gallons of drinking water each day.

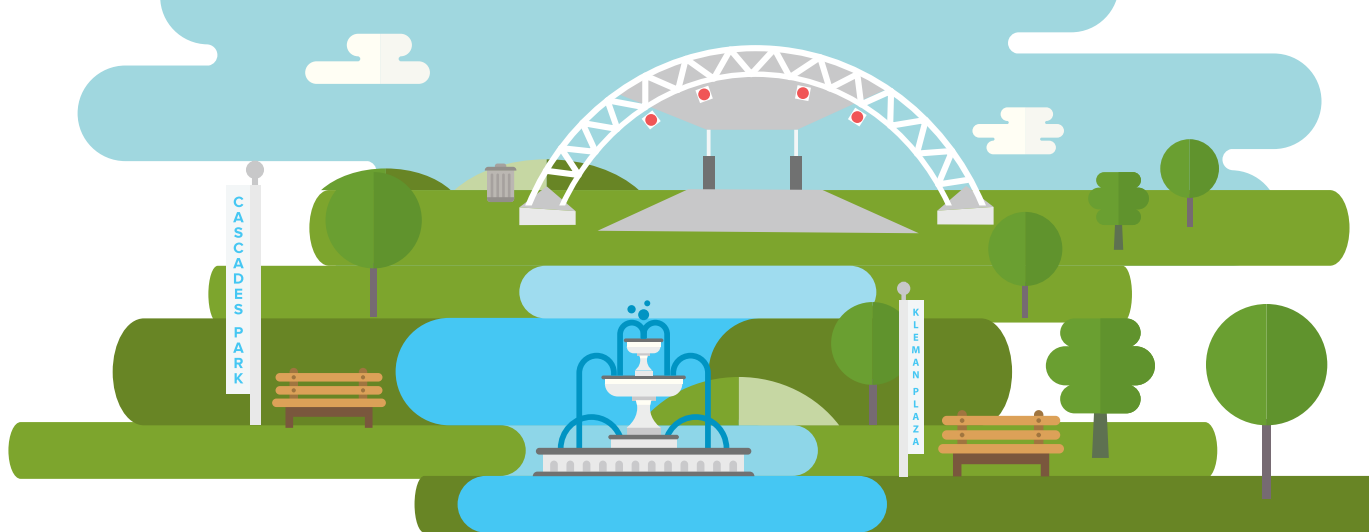


27

Deep wells drilled directly into the Floridan Aquifer

25

Million gallons of drinking water each day



The City of Tallahassee is fortunate to have a clean source for drinking water of exceptional quality underground in the Floridan Aquifer. This vast geological formation supplies our region with reliable, high quality water for which only limited treatment is required.

The Water Utility employs telemetry-controlled well pumps to monitor and control the production and distribution of water throughout Tallahassee. All 27 water well sources are treated with chlorine for disinfection purposes and fluoride for dental health purposes. Additional treatment, utilizing granular activated carbon, is provided at six wells, where filters remove certain chemicals found in the aquifer at those locations. A different type of filtration, which utilizes Greensand, is used at one well in the northwest area to remove naturally occurring iron and manganese.

The City of Tallahassee's water distribution system contains approximately 1,300 miles of water main piping and eight elevated storage

tanks. The operation of the tanks, like that of the wells, is controlled remotely via telemetry. The water tanks allow the City to provide customers with adequate water pressure while also storing sufficient water supply for emergency events, such as fires.

HOW DO WE TEST OUR WATER?

One of the components of the Water Quality Division is a professionally staffed, nationally-accredited water and environmental testing laboratory. Every year, the laboratory analyzes over 16,000 samples, testing against 105,000 quality analytes. The major focus of the lab is to evaluate water and environmental samples for a variety of biological, organic, and inorganic analyses. The fundamental mission of the laboratory is to make sure that the drinking water provided to our customer's home or business meets all state and federal regulations, as well as the consumer's personal level of satisfaction.

WATER-WISE TIP: CLOUDY WATER

Ever worry about water that looks a bit cloudy or milky? When the water is turned on and it's very cold, such as during the winter or from a groundwater source, the water will heat within your household plumbing system naturally before it reaches the tap. This increase in temperature allows dissolved air to be released in the form of air bubbles. Air bubbles can appear milky or cloudy. Allow the water to sit in a glass or pitcher for a few minutes, and the water bubbles will rise to the surface and disappear. Construction can also introduce air into your water system. Flushing your cold water taps after construction, or after the water supply has been off, will allow the air to escape.

UNDERSTANDING TALLAHASSEE'S WATER QUALITY

Tallahassee residents can rest assured that our water meets or exceeds all guidelines set forth by the Florida Department of Environmental Protection, the U.S. Environmental Protection Agency, and the Florida Department of Health.

CONTAMINANTS

Although the Floridan Aquifer has some of the cleanest water in the world, there will always be small traces of contaminants.

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.

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.

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 1-800-426-4791.

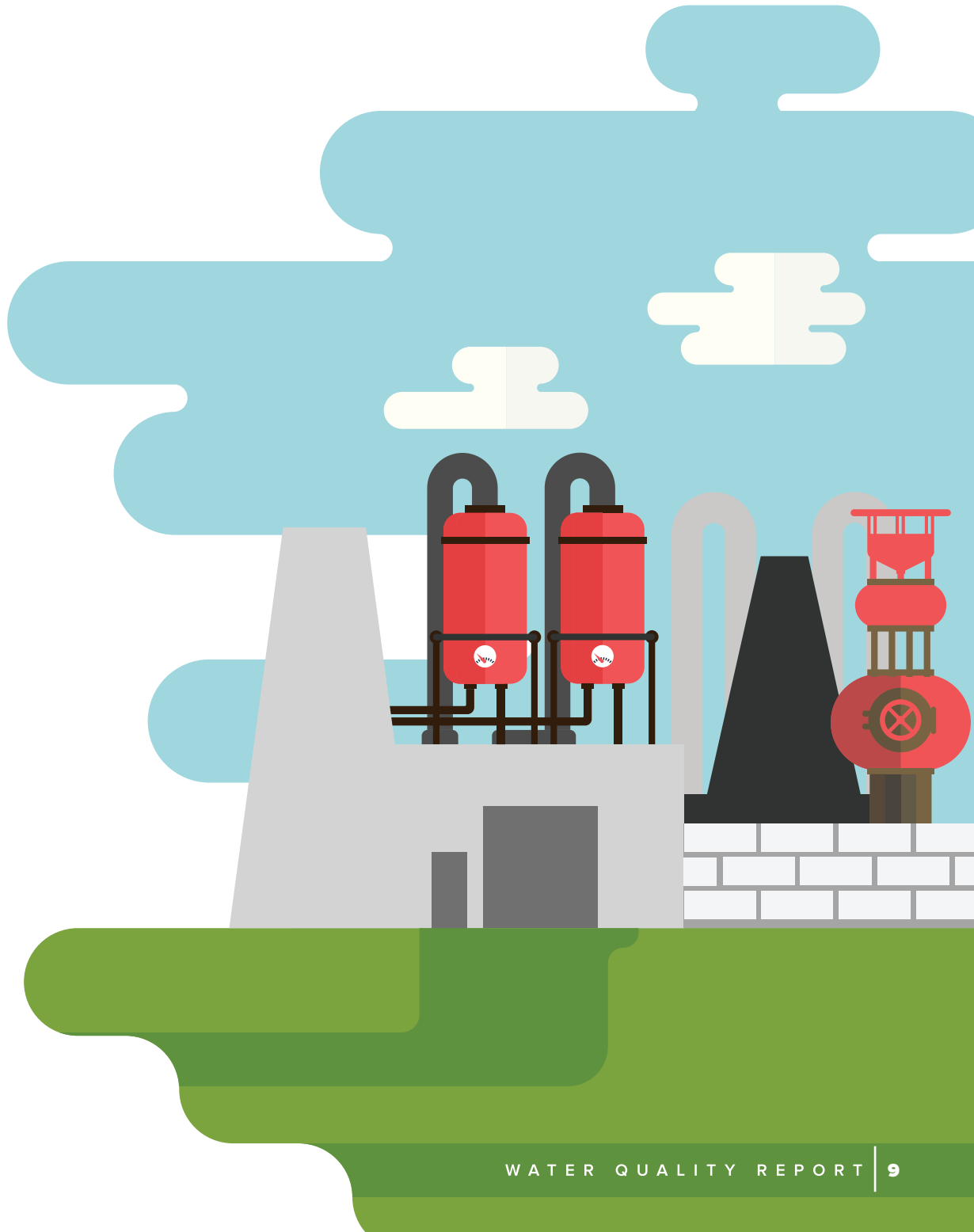
WATER ASSESSMENT AND PROTECTION

In 2016, the Florida 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 forty-two (42) potential sources of contamination, including eight (8) in the High susceptibility level and thirty-four (34) in the Low-Moderate susceptibility levels.

The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp. They can also be obtained by contacting the Water Quality Division at 850-891-1220.

LEAD AND DRINKING 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 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 minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.



TEST RESULTS: UNDERSTANDING YOUR WATER QUALITY DATA TABLE

In the water quality test results on pages 10 through 12 of this report, you may find terms and abbreviations with which you are not familiar. Here is a quick reference guide to help you better understand the test results.

- **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **Maximum Contaminant Level Goal (MCLG):** 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 (MCL):** 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.
- **Maximum Residual Disinfectant Level (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 (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.
- **Not Detected (ND):** Indicates that the substance was not found by laboratory analysis.
- **Parts per billion (ppb) or Micrograms per liter (µg/l):** One part by weight of analyte to 1 billion parts by weight of the water sample.
- **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.
- **Picocurie per liter (pCi/L):** Measure of the radioactivity in water.
- **90th Percentile:** Represents the highest value found out of 90 percent of the samples taken in a representative group. If the 90th percentile is greater than the action level, it will trigger a treatment or other requirements that a water system must follow.

LEAD AND COPPER (TAP WATER)

Contaminant and Unit of Measurement	Dates of Sampling (MM/YY)	AL Exceeded Y/N	90 th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	06/14 - 09/14	N	0.53	0 out of 51	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	06/14 - 09/14	N	2.0	0 out of 51	0	15	Corrosion of household plumbing systems; erosion of natural deposits

VOLATILE ORGANIC CONTAMINANTS

Contaminant and Unit of Measurement	Dates of Sampling (MM/YY)	MCL Violation (Y/N)	Level Detected	Range of Results	Max Contaminant Level Goal (MCLG)	Max Contaminant Level (MCL)	Likely Source of Contamination
Tetrachloroethylene (ppb)	01/16 - 12/16	N	0.91	ND - 1.91	0	3	Discharge from factories and dry cleaners

MICROBIOLOGICAL CONTAMINANTS

Contaminant	Dates of Sampling (MM/YY)	Violation (Y/N)	Total Number of Positive Samples for the Year	Max Contaminant Level Goal (MCLG)	Max Contaminant Level (MCL)	Likely Source of Contamination
E. coli (at the ground water source)*	01/16 - 12/16	N	1	0	0	Human and animal fecal waste

*On February 29, 2016, City Well 28 was sampled for the fecal-indicator, *E. coli*, and laboratory results indicated that the well tested positive for *E. coli*. Additional confirmation samples indicated that *E. coli* was not present. Because *E. coli* was not detected in the confirmation samples, no additional testing or remediation was necessary.

Health Effects: Fecal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.

RADIOACTIVE CONTAMINANTS

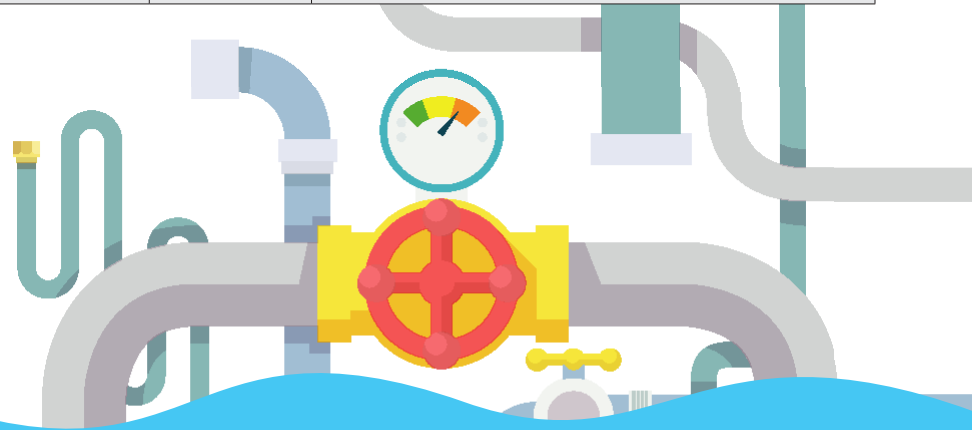
Contaminant and Unit of Measurement	Dates of Sampling (MM/YY)	MCL Violation (Y/N)	Level Detected	Range of Results	MCLG	Max Contaminant Level (MCL)	Likely Source of Contamination
Alpha emitters (pCi/L)	01/14 - 12/14	N	6.6	ND - 6.6	0	15	Erosion of natural deposits
Radium 226 + 228 or combined radium (pCi/L)	01/14 - 12/14	N	3.4	0.3 - 3.4	0	5	Erosion of natural deposits

STAGE 1 DISINFECTANTS AND DISINFECTION BY-PRODUCTS

Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling (MM/YY)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)	01/16 - 12/16	N	0.88	0.84 - 0.9	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	01/16 - 12/16	N	9.13	ND - 20.12	NA	MCL=60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	01/16 - 12/16	N	20.46	0.35 - 28.57	NA	MCL=80	By-product of drinking water disinfection

INORGANIC CONTAMINANTS

Contaminant and Unit of Measurement	Dates of Sampling (MM/YY)	MCL Violation (Y/N)	Highest Level Detected	Range of Results	Max Contaminant Level Goal (MCLG)	Max Contaminant Level (MCL)	Likely Source of Contamination
Arsenic (ppb)	01/14 - 09/14	N	2	ND - 2	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	01/14 - 09/14	N	0.0162	0.0057 - 0.0162	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	01/14 - 09/14	N	2.5	ND - 2.5	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Cyanide (ppb)	01/14 - 09/14	N	3.4	ND - 3.4	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride (ppm)	01/14 - 09/14	N	1.31	0.17 - 1.31	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at the optimum level of 0.7 ppm
Nitrate (as Nitrogen) (ppm)	1/16 - 11/16	N	0.65	0.037 - 0.65	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	1/16 - 11/16	N	0.002	ND - 0.002	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	01/14 - 09/14	N	3.75	ND - 3.75	N/A	160	Salt water intrusion; leaching from soil



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, 2016 to December 31, 2016. Data obtained before January 1, 2016, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

KEEPING YOUR WATER QUALITY AT HOME

Did you know that conditions in your home plumbing system can affect the quality of your water? We want to ensure that you receive high-quality water throughout your house and have 10 tips that can help you maintain your water quality:



READ THIS REPORT: Our 2017 *Water Quality Report* is an excellent resource to learn about the water quality of Tallahassee. It provides testing results and data, as well as information concerning how your water is sourced and treated.



GO FOR THE COLD: Use cold tap water for drinking and food preparation. Homes with lead pipes or copper pipes with lead solder run the risk of lead leaching into water when water sits in the pipes. As hot water dissolves lead and other metals more quickly, your exposure to these elements increases when you use hot water for drinking or in a consumable way.



KEEP UP YOUR WATER TREATMENT SYSTEMS: Maintain home water treatment systems, including filters, treatment devices and water softeners, as recommended by the manufacturer.



PROPER CONSTRUCTION: Be sure the plumbing system is constructed properly, including the installation of appropriate backflow protection.



MAKE IT MOVE: Use water taps regularly. Flush cold water taps (open the faucets) throughout your home for several minutes when water has not been used for several days. If your water has been unused for six or more hours (during nighttime, as an example) and you experience a metallic flavor, run the water for two minutes before using.



OUT WITH THE OLD: Older pipes are at greater risk of leaking and corroding or releasing metals such as iron, lead, copper, or zinc into your water. Replace old plumbing, especially lead-containing and galvanized plumbing material.



FLUSH TAPS AFTER PLUMBING WORK: When new plumbing is installed, it is important to flush your household water system (open the taps and let the water run). A licensed plumber should provide instructions on how to flush the system. This should include flushing water throughout your house by opening cold water faucets one at a time, starting with the lowest floor (such as the basement) up to the highest floor in your house.



WATER HEATER UPKEEP: Sediment, corrosion and bacterial growth can build up in hot water systems. Unusual odors that smell like rotten eggs, a burnt match, or a sewer or a decline in water pressure can be signs the water heater may require maintenance. Contact a licensed plumber or follow the manufacturer's instructions to flush and drain your water heater annually.



WATCH YOUR TEMP: Maintain the water heater's temperature as recommended by the manufacturer. A temperature set below the recommended temperature can allow bacteria to grow. Temperatures that are too high can cause scalding and the buildup of calcium scale within the water heater.



BE AWARE: Take action when you experience a change in the taste, smell or color of your water or notice particles in your water or stains on fixtures and laundry.

CAN YOU FEEL THE PRESSURE?

In accordance with regulations, the City of Tallahassee provides a minimum water pressure of 20 pounds per square inch (psi) to all its customers. Because the pressure is controlled by the elevation of the water storage tanks relative to the elevation of each residence, the pressures experienced throughout the water service area are highly variable, in some cases reaching more than 100 psi. While most people consider high water pressure a good thing, water pressure that is too high can cause problems. High water pressure uses extra water, places additional stress on your pipes and can even lead to leaks. Inconsistent or high water pressure can also put strain on appliances like your washing machine and water heater, shortening their lifespan.

So, what can you do to reduce your pressure? To comply with the plumbing code and protect household plumbing, residences that experience a water pressure greater than 80 psi are required to install a pressure reducing device. The valve will keep the pressure at reasonable levels in your home. Additionally, have a licensed plumber check out your water pressure, which can give you the peace of mind to know that you are doing everything you can to protect your home and everything in it. Keep in mind that pressure reducing valves – like all equipment – can experience failure from time to time. This can lead to a drop in pressure within the house. If this happens, a licensed plumber can evaluate and correct the problem.



WATER-WISE TIP: DISPOSING OF USED OIL

Don't throw away used oil! Return used oil to stores or garages that accept and recycle the oil. Many stores that provide oil change services will also accept oil, transmission, and hydraulic fluids from do-it-yourselfers – just call and ask. Used oil filters may also be recycled as scrap. Oil filters are highly-recyclable products, containing materials desired by manufacturers for industrial use.



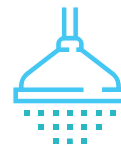
WATER-WISE TIP: CHEMICAL HAZARDS

Disposing of household chemicals – pesticides, paints, furniture strippers, or other household products – can be challenging. Dumping them on the ground is bad for the environment, surface and ground water, plants, and animals. Just leaving them in the closet or garage only delays the problem. Leon County's Hazardous Waste Division can answer your questions about safely disposing of your household chemicals; call them at 850-606-1816.



WATER-WISE TIP: DISCOLORED WATER

Rust or iron can build up in the plumbing system, causing brown or yellow colored water, stained fixtures and laundry, and a metallic flavor. If you regularly experience discolored water, especially immediately after periods of long stagnation, have your plumber check for and replace old galvanized pipe. If no galvanized pipe is found, have your plumber thoroughly flush your water heater and household plumbing system.



WATER-WISE TIP: CROSS CONTAMINATION

A cross connection happens when drinking water plumbing is connected or in contact with a non-drinking water system like a lawn sprayer, swimming pool, irrigation system, or water heating and cooling system. When water flows back from the non-drinking water system into your drinking water plumbing system, your drinking water becomes contaminated. A licensed plumber can check your household water system to protect against contamination of your drinking water.



1st
Kendall Reed
 DeSoto Trail Elementary School
 Ms. Morris



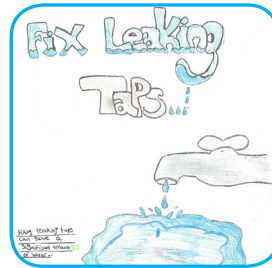
2nd
Jason Wheeler
 DeSoto Trail Elementary School
 Ms. Morris



3rd
Hanna Knight
 Roberts Elementary School
 Ms. Muy



3rd
Ruchir Talasu
 Conely Elementary School
 Ms. Smith



Honorable Mention
Brianna Barfield
 FAMU Developmental
 Research School
 Ms. Coleman



Honorable Mention
Branson Hurst
 DeSoto Trail Elementary School
 Mrs. Bird

2017 WATER CONSERVATION POSTER COMPETITION WINNERS

Educating customers about the importance of water preservation is a critical step in protecting our community’s water supply. We work with our area’s schools to teach water conservation to the next generation of community members. As part of this effort, students created designs that visually showcased their ideas for how we can better protect our water. We thank all the students who participated in our annual poster contest and the teachers and school leaders who continue to educate the next generation on how we can work together to protect our world. Congratulations to the 2017 winners of the water quality poster contest!

YOU AND YOUR CITY OF TALLAHASSEE WATER SERVICES

At the City of Tallahassee, we work as a team. We value you – the customer – as a member of our team and steward of the water provided to our city. We thank our customers for all they do to help protect our water sources, which are the heart of our community, our way of life, and our future.

We at the City of Tallahassee would like you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

If you have any questions about this report or concerning your water utility, please contact Jennifer Porter, Program Engineer – Water Quality, at 850-891-1235 or Jennifer.porter@talgov.com. We encourage our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled City Commission meetings. Visit talgov.com for a schedule of the commission meeting dates and times.



City of Tallahassee Water Utility
4505 A Springhill Road
Tallahassee, FL 32305

FINAL WORD ON BEING WATER-WISE

Water conservation is everyone's job. The Floridan Aquifer is an abundant and prolific source of drinking water, but the supply is not infinite. We must all do our part to conserve water. Be sure to turn off the faucet when brushing your teeth, install low-flow toilets and shower heads, and fix the drip - because every drop counts.