

2017 WATER QUALITY REPORT

CLEAN • SAFE • RELIABLE



The *Reliable One*®

Este reporte incluye información importante sobre el agua potable.
Para asistencia en español, favor de llamar al telefono (407) 423-9018.

A Word From Our CEO & General Manager



As OUC's new General Manager & CEO, I am honored to have the opportunity to lead this great utility into the future. Reliability, water quality, sustainability and conservation remain at the core of what we do, and we work hard to live up to our reputation each and every day. Part of being a public utility is an unwavering commitment to doing what's best for the community we serve, and we proudly accept that responsibility.

This 2017 OUC Water Quality Report contains detailed information about your drinking water, how we ensure its safety, and our efforts to conserve this precious resource for generations to come.

At OUC, our top priority is delivering clean, safe, great-tasting water to our customers. We start with water from the Lower Floridan Aquifer, a well-protected reservoir located hundreds of feet below ground. We then treat this high-quality water with ozone, the strongest disinfectant available. Our state-certified water lab conducts more than 20,000 chemical and bacteriological water quality tests each year, including tests for more than 135 regulated and unregulated substances like lead and copper. A summary of those results is included in this report.

We also maintain a keen focus on water conservation, as we understand fostering a water-wise culture is crucial to ensuring an adequate water supply well into the future. Our year-round efforts include targeted education to Orange and Osceola County students through our award-winning Project AWESOME (Alternative Water & Energy Supply, Observation, Methods and Education) and The Water Color Project. These two programs have reached more than 80,000 students since 2006. We also work closely with the St. Johns River Water Management District to educate all of our customers and our community about being mindful of water consumption, especially during times of low rainfall and drought.

We take our name, The *Reliable One*, seriously, and that includes a steadfast promise to always provide safe, high-quality, great-tasting water today and for generations to come.

If you have any questions or concerns about our water quality, please don't hesitate to contact our Water Quality Lab at 407-434-2549.

Clint Bullock

— Clint Bullock
OUC General Manager & CEO

About OUC—The *Reliable One*

OUC is a municipal utility owned by the citizens of Orlando and governed by a board of commissioners. The utility provides electric and water services to more than 400,000 accounts in Orlando, St. Cloud and parts of unincorporated Orange and Osceola counties. OUC is one of the largest water utilities in the state and serves a population of approximately 438,000.



Safe, Reliable Drinking Water For Generations To Come

A Naturally Clean Water Source

OUC's water comes from the Lower Floridan Aquifer, an underground reservoir that, in many places, is a quarter of a mile below the earth's surface. The aquifer is fed by rainwater that is filtered through hundreds of feet of rock, undergoing a natural cleansing process. After pumping water from the aquifer to our water plants, OUC carefully treats the water to ensure its safety and enhance its quality.

Ensuring Conservation

OUC works year-round to educate the community about the importance of protecting such a precious natural resource. From water-conservation themed events, campaigns and student projects to proactive traditional and social media outreach during times of low rainfall or drought, we are committed to ensuring our customers understand the vital role water plays in our everyday lives and how crucial it is to guard our supply.

OUC also provides services to help customers become more water-wise consumers. Our conservation team offers in-person home audits to inspect all areas for potential water loss and to make recommendations on home improvements. Some – like irrigation, ultra low-flow toilets, and water cisterns – are eligible for OUC rebates designed to help with the costs. And, customers have online access to water conservation tips and videos covering topics including leak detection, water-wise landscaping, saving money with

faucet aerators, and more. For additional information, visit OUC.com/water.

Using Ozone to Produce Great-Tasting Water

OUC uses ozone treatment at its seven water treatment plants to produce high-quality, great-tasting tap water, proudly dubbed H₂OUC. Ozone oxidizes hydrogen sulfide to improve taste and odor and reduce the amount of chlorine that must be added to the water. The result is clean, great-tasting water with a sparkling appearance. As required by law, we still add chlorine to our water to maintain its high quality as it flows through pipes to our customers' taps. Fluoride is added to promote healthy teeth. We also adjust the pH by adding sodium hydroxide to prevent copper and lead from leaching into the drinking water from our customers' own plumbing, which is the primary source of these elements in our area.

Securing Our Water Facilities

All OUC water plants are equipped with state-of-the-art security systems that include intrusion-detection systems, alarms, cameras and security fences around the perimeter of the properties. Armed security guards and law enforcement officers regularly patrol the facilities. You can be assured that OUC remains vigilant in monitoring and protecting our water facilities. The safety of your water is our highest priority.

TEACHING THE IMPORTANCE OF WATER CONSERVATION

To ensure we continue to deliver great-tasting, clean water to our customers, OUC is teaching the next generation about the importance of conserving and protecting Florida's water supply through classroom programs such as the Water Color Project and Project AWESOME.

For the past 12 years, OUC has reached more than 80,000 local students through water-conservation themed educational programs. The Water Color Project encourages students to use creativity to promote conservation. Elementary school students compete to have their artwork featured in an annual calendar, while middle and high school students decorate water-themed rain barrels for judging.

Project AWESOME delivers an interactive lab to fifth grade classrooms. Students learn about alternative sources and where their water comes from by building a model aquifer.

OUC has taken a leadership role in the search for innovative, reliable solutions. OUC is also focusing on reclaimed water—highly-treated wastewater safe for human contact—to supply for anticipated landscape and lawn irrigation needs. Through regional

partnerships with the City of Orlando and other Central Florida water utilities, OUC is planning alternative water sources to meet future drinking water demand.

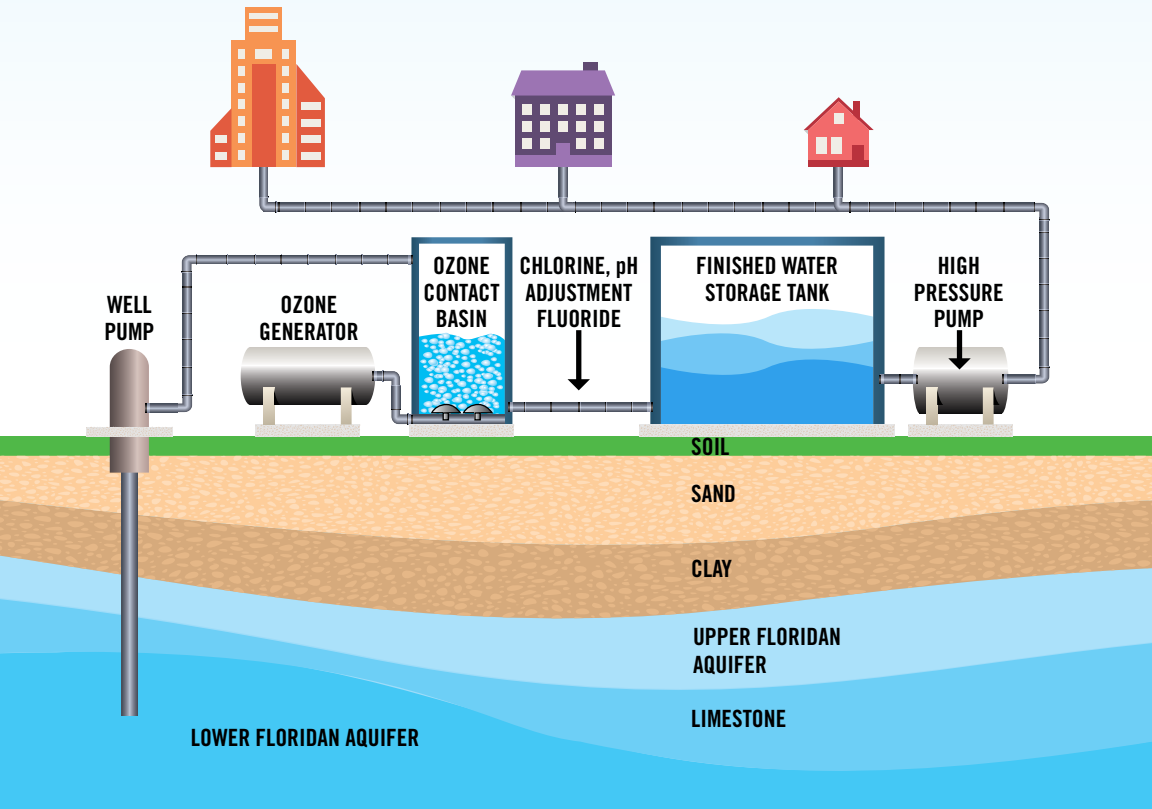
Even small steps add up to big savings, lowering your monthly utility bill while preserving our water supply. Here are a few tips to help you start saving:

- Water your lawn before 10 a.m. or after 4 p.m. to minimize the amount lost to evaporation.
- Water just once a week in cooler months and twice a week in warmer months to maintain healthy grass.
- Water your lawn for just 30–45 minutes per session.
- Repair leaking faucets and toilets.
- Install water-saver shower heads and take shorter showers.

For more ways to save water, visit www.ouc.com/waterconservation.

As part of OUC's Water Color Project, elementary school students created the artwork below, which is featured in this year's water conservation calendar. Local middle and high school students painted the rain barrels (right).

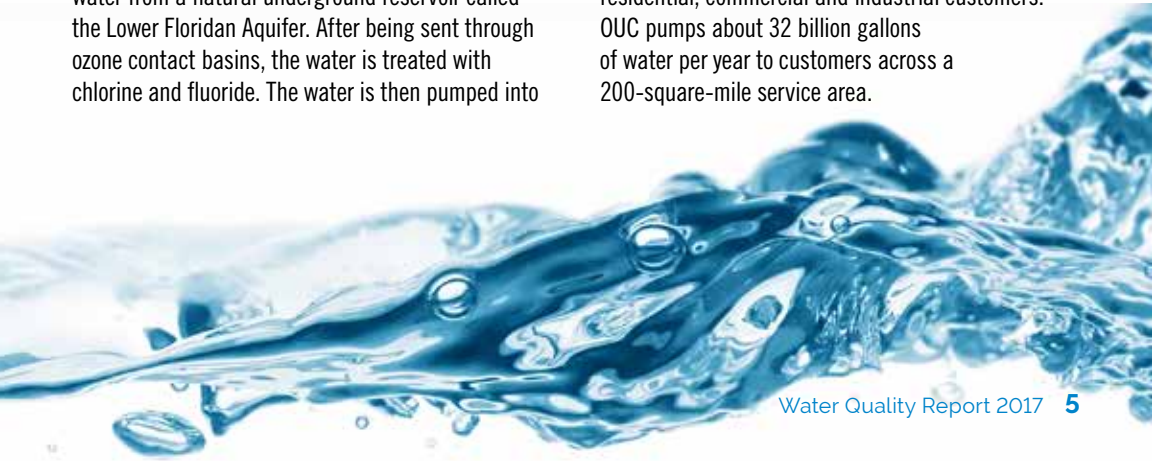




WHERE DOES YOUR WATER COME FROM?

Well pumps at OUC's water treatment plants draw water from a natural underground reservoir called the Lower Floridan Aquifer. After being sent through ozone contact basins, the water is treated with chlorine and fluoride. The water is then pumped into

a finished water storage tank and distributed to residential, commercial and industrial customers. OUC pumps about 32 billion gallons of water per year to customers across a 200-square-mile service area.





WATER QUALITY TEST RESULTS

ALL TEST RESULTS WELL BELOW ALLOWABLE LEVELS

As shown in the following tables, the water that OUC delivers to your tap surpasses all federal and state requirements for safe drinking water. Of the more than 135 regulated and unregulated substances for which we test annually, only several have been detected, and the detection levels were below allowable levels. The following results are from the most recent tests available in accordance with Department of Environmental Protection (DEP) regulations.

Inorganic Contaminants							
Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Barium (ppm)	02/2017	N	0.031	0.009–0.031	2	2	Erosion of natural deposits
Fluoride (ppm)	02/2017	N	0.70	0.36–0.70	4	4	Erosion of natural deposits; water additive that promotes strong teeth when at the optimum level of 0.7 ppm
Selenium (ppb)	02/2017	N	0.97	ND–0.97	N/A	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	02/2017	N	15.5	6.72–15.5	N/A	160	Salt water intrusion; leaching from soil

STAGE 1 DISINFECTANTS AND DISINFECTION BY-PRODUCTS

Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Bromate (ppb)	01/17–12/17	N	4.09	ND–9.83	MCLG = 0	MCL = 10	By-product of drinking water disinfection
Chlorine (ppm)	01/17–12/17	N	1.2	0.20–2.15	MRDLG = 4	MRDL = 4	Water additive used to control microbes

For bromate and chlorine, the level detected is the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. The range of results is the range of results of all the individual samples collected during the past year.

STAGE 2 DISINFECTANTS AND DISINFECTION BY-PRODUCTS

Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Haloacetic Acids (HAA5) (ppb)	02/17–11/17	N	26.15**	3.84–29.6	N/A	MCL=60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	02/17–11/17	N	73.01**	22.81–78.88	N/A	MCL=80	By-product of drinking water disinfection

*** Compliance levels are based on the locational running annual averages.*



RESULTS OF COPPER AND LEAD SAMPLING AT CUSTOMER TAPS

The following results are from tests conducted in July 2017 (the most recent available in accordance with DEP regulations). The tests confirm that the levels of lead and copper in tap water sampled in homes were below the Action Level (AL).

Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	AL Exceeded (Y/N)*	90th Percentile Result	Number of sampling sites exceeding the AL	MCLG	AL	Likely Source of Contamination
Copper (tap water) (ppm)	7/17	N	0.6	1	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	7/17	N	3	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

**The Action Level (AL) is exceeded if the concentration in more than 10% of the tap samples (90th Percentile Result) is greater than the established AL.*



KEYS TO ABBREVIATIONS

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.

AL:

Action Level.

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

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.

LRAA:

Locational Running Annual Average.

The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

N/A:

Not Applicable.

ND:

Not Detected.

Indicates that the substance was not found by laboratory analysis.

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.

More About Lead and Copper

The primary source of lead and copper in tap water is a customer's plumbing. These elements can possibly leach into the water from a building's plumbing through corrosion if the water has been standing in the pipes for several hours. To prevent corrosion from occurring, OUC has effectively implemented system-wide corrosion-control treatment. At the treatment plants, sodium hydroxide is added to the water to increase the water's pH and thus prevent corrosion.

Buildings at risk for lead or copper in the water are those that have lead services or that have lead solder in copper pipes.

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. OUC 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 Environmental Protection Agency (EPA) Safe Drinking Water Hotline at [1-800-426-4791](tel:1-800-426-4791) or online at www.epa.gov/safewater/lead.

Constantly Testing Your Water

OUC's Water Quality Laboratory is certified by the Florida Department of Health (FDOH) and is accredited to perform a wide scope of analyses. Certification is maintained through an on-site



assessment every two years and performance of proficiency testing twice a year. Chemists at OUC's Water Quality Laboratory perform more than 20,000 chemical and bacteriological tests annually to ensure that OUC's drinking water meets or exceeds all state regulations. Customers can continue to enjoy OUC's award-winning water with confidence, knowing that our water is tested regularly and surpasses the highest quality standards. For more information about OUC's drinking water, call our Water Quality Laboratory at [407-434-2549](tel:407-434-2549) to talk to a water quality professional. Information is also available online at www.ouc.com.

Source Water Assessment

The latest source water assessment was completed in 2017 and the report is available online at www.dep.state.fl.us/swapp.

EPA STATEMENT ABOUT WATER RESOURCES, 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 come from gas stations, urban stormwater runoff and septic systems.
- **Radioactive contaminants**, which can be naturally occurring or 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 that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

All drinking water, including bottled water, may be reasonably 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 EPA Safe Drinking Water Hotline at 1-800-426-4791.

WHAT THE EPA SAYS ABOUT MCLs AND HEALTH EFFECTS

The Maximum Contaminant Levels (MCLs) established by the EPA are set at very stringent levels. To understand the possible health effects described for many regulated constituents, 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 effect.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, those with HIV/AIDS or other immune system disorders, and some elderly and infants, can be particularly at risk for infections. These people should seek advice from their health care providers about drinking water. EPA and Center for Disease Control and Prevention guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the EPA Safe Drinking Water Hotline, 1-800-426-4791.



The Reliable One[®]

ORLANDO UTILITIES COMMISSION
100 West Anderson Street
Orlando, Florida 32801
www.ouc.com

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2018 COMMISSION MEETING SCHEDULE

July 10 October 9

August 21 November 13

September December 11
(no meeting)

*OUC Commission Meetings are held on the
second Tuesday of every month at OUC's
Reliable Plaza downtown at:*

100 W. Anderson Street,
Orlando, FL 32801.

