



CASSELBERRY

2019
Consumer Confidence Report

The Water We Drink

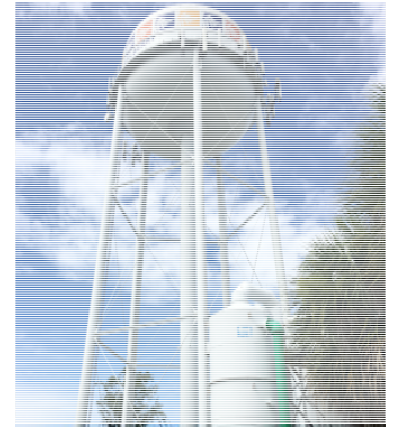
Water Source and Treatment

The following is the City of Casselberry's Consumer Confidence Report for the drinking water provided to you over the past year. The City is always striving to uphold the water services you rely upon and constantly looking for areas to improve. This report is part of the ongoing effort to keep you up to date with the latest information regarding the utilities.

The mission of the City is, and always has been, to provide consumers with a safe and dependable supply of drinking water. The Water Production Division has three water treatment facilities: North Plant, South Plant, and Howell Park. Water is drawn from wells in the Floridan Aquifer. The water is aerated to eliminate sulfur odor and disinfected to inactivate microbial organisms. The South Water Treatment Plant also uses granular activated carbon filtration to remove disinfection by-product precursors. Orthophosphosphate is also added to the water system for corrosion control which helps extend the life of water mains and residential plumbing, reducing lead and copper residuals.

In 2019, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on the City's system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of the City's drinking water wells. There were eleven potential sources of contamination identified for this system, with a low susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp or by contacting the Casselberry Public Works Department at (407) 262-7725.

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).



Contact Information

If you have any questions about this report or concerning your water utility, please contact the Public Works Department at (407) 262-7725. Being informed about your water is highly encouraged. For opportunities to participate in decisions about drinking water, please attend any of the City's regularly scheduled City Commission meetings which are held on the 2nd and 4th Mondays of each month at 5:00 pm.

Period Covered by Report

The City of Casselberry 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 monitoring for the period of January 1 to December 31, 2019. Data obtained before January 1, 2019, and presented in this report, are from the most recent testing done in accordance with laws, rules, and regulations.

Terms and Abbreviations

In the Water Quality Test Results table, you may find unfamiliar terms and abbreviations. To help you better understand these terms, the following definitions are provided:

Maximum Contaminant Level or 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 Contaminant Level Goal or 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.

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

Locational Running Annual Average (LRAA): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

Maximum Residual Disinfectant Level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal or MRDLG: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

“ND” means not detected and indicates that the substance was not found by laboratory analysis.

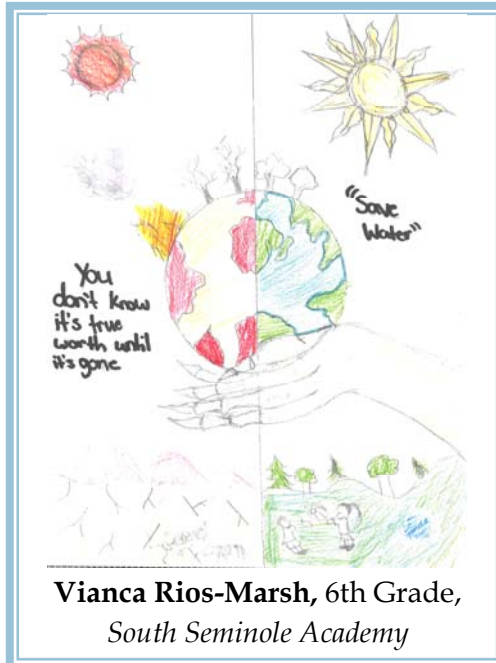
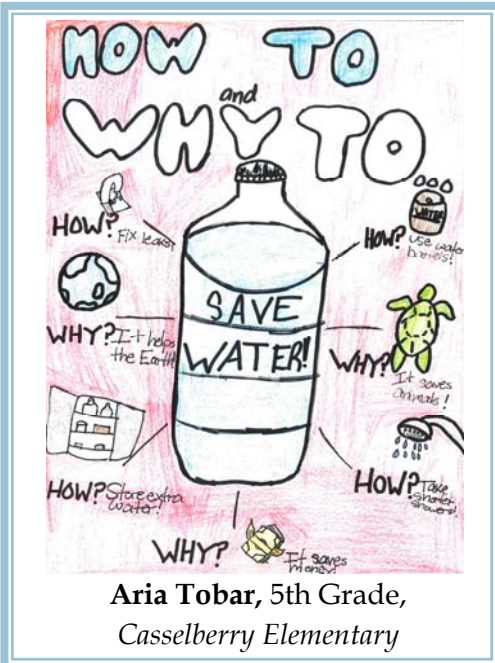
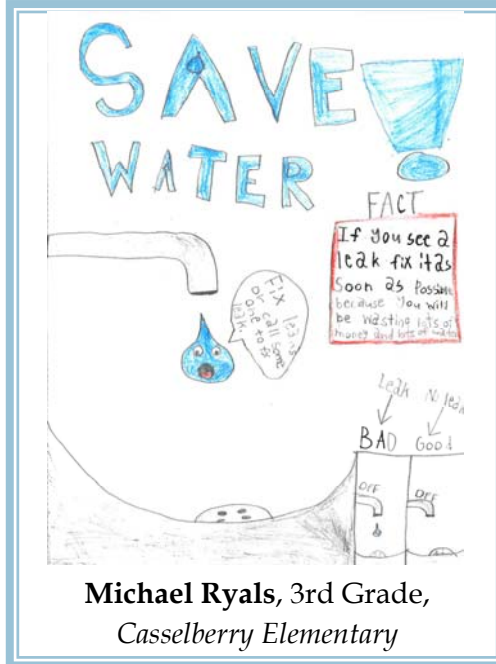
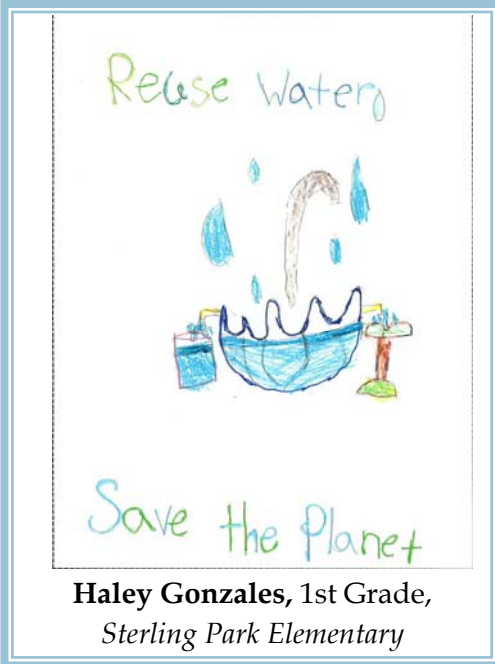
Parts per billion (ppb) or Micrograms per liter ($\mu\text{g}/\text{l}$): one part by weight of analyte to 1 billion parts by weight of the water sample.

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.



2020 Drop Savers Poster Contest Winners



Division 1
(Grades K-1):
Haley Gonzales
1st Grade
Sterling Park
Elementary School

Division 2
(Grades 2-3):
Michael Ryals
3rd Grade
Casselberry Elementary
School

Division 3
(Grades 4-5):
Aria Tobar
5th Grade
Casselberry Elementary
School

Division 4
(Grades 6-8):
Vianca Rios-Marsh
6th Grade
South Seminole
Academy



Water Quality Test Results

Radioactive Contaminants						
Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL
Alpha Emitters (pCi/L)	May 2014	No	2.5	1.0-2.5	0	15
Radium 226 + 228 (pCi/L)	May 2014	No	2.5	0.6-2.5	0	5

Inorganic Contaminants						
Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL
Barium (ppm)	May 2017	No	0.017	0.009-0.017	2	2
Fluoride (ppm)	May 2017	No	0.29	0.27-0.29	4	4
Sodium (ppm)	May 2017	No	13	8.9-13	N/A	160
Nitrate (ppm)	Jan 2019	No	0.28	ND-0.28	10	10

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 or MRDLG	MCL or MRDL
Chlorine (ppm)	Jan 2019—Dec 2019	No	1.37	0.35-2.2	MRDLG=4	MRDL=4.0
Halooacetic Acids (HAAs) (ppb)	Feb 2019 – Nov 2019	No	29.45	14.24-29.39	N/A	MCL=60
Total Trihalomethanes (TTHM) (ppb)	Feb 2019 – Nov 2019	No	54.24	32.30-67.31	N/A	MCL=80

Lead and Copper (Tap Water)						
Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	AL Violation Y/N	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)
Copper (tap water) (ppm)	July 2017	No	0.23	0	1.3	1.3
Lead* (tap water) (ppb)	July 2017	No	1.5	0	0	15

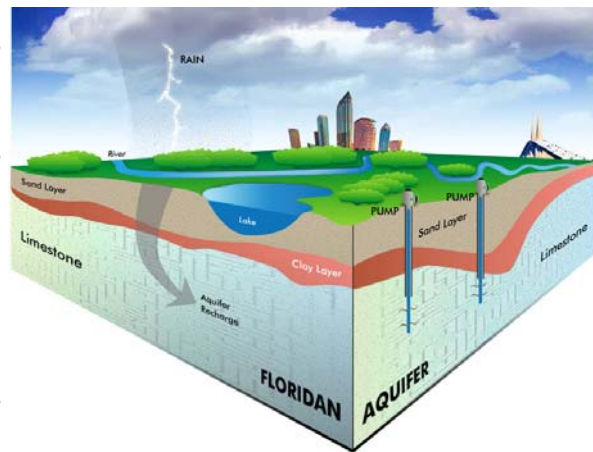
*If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Casselberry is responsible for providing high quality drinking 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>.

Water's Natural Composition

The sources of drinking water (both tap 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 results from urban storm water 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 storm water 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 storm water runoff, and septic systems.
- (E) 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, which limit the amount of certain contaminants in the 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.

Water Quality Parameters

The City of Casselberry and the Florida Department of Environmental Protection (FDEP) have a set of Water Quality Parameters established for the City's drinking water system that allow the City to more efficiently monitor the drinking water system for its potential to corrode lead and copper pipes. From May 8 to June 5, 2019, the alkalinity fell below the established range of 90-150 mg/L CaCO₃ equivalent, with the lowest recorded value being 82 mg/L CaCO₃ equivalent., resulting in a violation of the City's Water Quality Parameters with FDEP. Alkalinity levels outside the established range can impact the effectiveness of the corrosion control additive the City uses to prevent metals such as lead and copper from plumbing, household fixtures, or older service lines from entering into the water distribution system via pipe corrosion. It is possible that during the period of lowered alkalinity, trace amounts of lead and copper from household fixtures and plumbing may have corroded into the drinking water. It is unknown how much, if any, may have corroded, but levels were not such that it would be considered an emergency. No action was needed to be taken by consumers and no alternative water supplies were needed. However, the City is in the process of developing an alkalinity study to determine whether the established Water Quality Parameters need to be adjusted.

Lead and Copper Health Effects

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action-level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.



Alert Seminole! Emergency Notification System

Alert Seminole is an opt-in system to receive notifications via phone call, text message, or e-mail about important emergencies such as: boil water notices, severe weather, flooding, gas leaks, police activity, disruptive road closures, evacuations, shelter information and more!

To create an account and receive alerts, visit: www.alertseminole.org and select [SIGN UP HERE](#).

Infrastructure Improvements

The City has been putting your utility dollars to work replacing and rehabilitating its aging infrastructure. The **Seminola Force Main Replacement** and **Wilshire Force Main Replacement** projects are nearly complete. The Seminola Force Main Replacement project included the replacement and upsizing of nearly a mile of sewer force main pipe along Seminola Blvd. and N. Winter Park Dr. The Wilshire Force Main Replacement project consisted of the replacement and upsizing of approximately 2,500 feet of sewer force main pipe along Wilshire Dr. The new force mains will increase the capacity of the wastewater collection system and improve the overall resilience of the Casselberry utility system which will help to prevent sanitary sewer overflows.



Pictured: Fused HDPE pipe laid out for the Wilshire Force Main Replacement.

The Howell Park Water Treatment

Plant, originally built in the 1960s, is currently out of service for a complete rehabilitation project and is anticipated to be up and running again by the end of 2020. This rehabilitation project includes the complete demolition and reconstruction of the entire water treatment plant except for the wells and the two ground storage tanks. Components of the plant to be replaced include the high service pumps, chemical injection systems, electrical equipment, and lab, as well as the two buildings housing these components.



Pictured: Demolition of the existing Howell Park Water Treatment Plant.

The **Seminola Master Lift Station Renovation** and the **Water Reclamation Facility Improvements** projects are just beginning construction. The Seminola Master Lift Station Renovation project will outfit the largest City-owned lift station with a new wet well, new pumps, new piping, and a new backup generator and fuel tank. This lift station handles approximately one third of all wastewater entering the City's Water Reclamation Facility and was one of the very first lift stations owned by the City. Together with the Seminola Force Main Replacement, this project will increase the City's wastewater collection capacity and improve its reliability. The Water Reclamation Facility Improvements will rehabilitate the existing traveling bridge filter, chlorine contact chambers, transfer pump pit, and high service pumps, increasing the lifespan of the existing facility. These projects are expected to be complete by the end of 2020.



Pictured: Fused HDPE pipe ready to be drilled for the Seminola Force Main Replacement.

City of Casselberry

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CASSELBERRY

Additionally, the City lined over 12,000 feet of gravity sewer main and 13 manholes in 2019. **Gravity sewer** and **manhole lining** are an economically efficient method of rehabilitating the City's gravity sewer system with little disruption to residents. Lining also decreases maintenance and wastewater treatment costs to the City by minimizing the flow of unwanted rainwater into the gravity sewer system.

The City of Casselberry prioritizes protecting the health and safety of its residents, which is why it is continually using utility revenue on projects to improve utility infrastructure. These projects increase the reliability and resiliency of the utility system and ensure that your water and sewer service will be safe and affordable for years to come.