

SEMINOLE COUNTY | DOVERA
PRESENTED BY THE CITY OF WINTER SPRINGS

2021 ANNUAL DRINKING **WATER QUALITY** **REPORT**



PWS ID NUMBER
3594240

CITY OF WINTER SPRINGS
PUBLIC WORKS AND UTILITIES





ABOUT THIS REPORT

Annual Drinking Water Quality Reports are designed to inform you about the quality of water we deliver to your home every day.

We are proud to present our 2021 Annual Drinking Water Quality Report for the Inwood Office Building and Amberly subdivision. These developments are within incorporated City of Winter Springs. However, due to their location at an outlying point in our service area, Winter Springs purchases the water to supply this area from Seminole County. The residents at this location receive customer service and utility bills from Winter Springs, but the water is supplied by Seminole County. **It is our pleasure to report that the drinking water we produce meets or exceeds all Federal and State water quality regulations.**

In 2021, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment for Seminole County. There are two 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 they can be obtained from Seminole County Environmental Services at 407-665-2010.

The City 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, 2021. Data obtained before January 1, 2021, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

If you have any questions about this report or your water utility, please contact the City of Winter Springs at 407-327-1800 Monday through Friday from 8:00 a.m. to 5:00 p.m.

DID YOU KNOW...

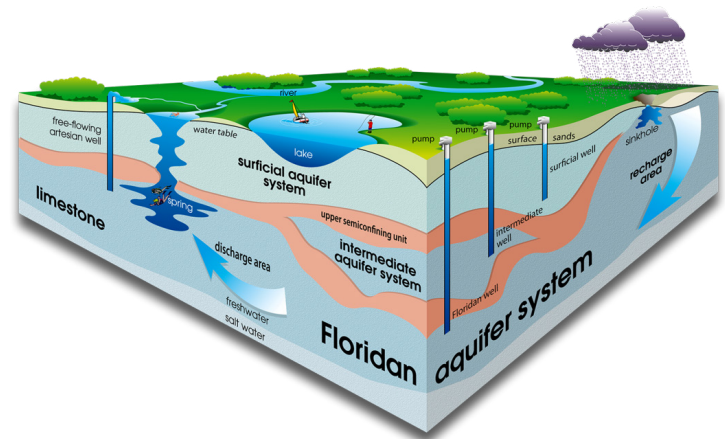
1. In 2021, the City distributed an average of 3.81 million gallons per day.
2. We received **55.4 inches** of rainfall in 2021, which was 5.1 inches lower than 2020.
3. The City has a total of **1,158 fire hydrants** that it maintains.
4. Scientists have determined groundwater in the Floridan aquifer as being between **17 to 26,000** years old.
5. The Floridan aquifer is the source of many springs in Florida.

YOUR WATER SUPPLY SOURCE

The vast majority of the public water systems in Florida use groundwater as their source.

Your water is supplied by Seminole County's Southeast Service Area and is obtained from groundwater wells, which draw from the Floridan Aquifer. The water is then ozonated, filtered with granular activated carbon for organic removal, PH adjustment, chlorinated for disinfection, aerated, and then fluoridated for dental health purposes.

The major source of ground water supply in Florida is the Floridan aquifer system, which underlies the entire state. The Floridan aquifer system is a principal aquifer of the United States and is one of the most productive aquifers in the world. It covers approximately 100,000 square miles of the southeastern United States including all of Florida and parts of Georgia, Alabama, Mississippi, and South Carolina.



This aquifer system is comprised of a sequence of limestone and dolomite, which thickens from about 250 feet in Georgia to about 3,000 feet in south Florida. The Floridan aquifer system has been divided into an upper and lower aquifer separated by a unit of lower permeability. The upper Floridan aquifer is the principal source of water supply in most of north and central Florida. Groundwater flow is generally from highs near the center of the state towards the coast. [The Floridan aquifer is the source of the many beautiful springs in Florida.](#)



WATER CONSERVATION

As part of our commitment to preserving our natural resources while better serving the community, we have implemented a Water Conservation Program.

Our Water Conservation Program seeks to promote water conservation and reduce water consumption among City residents through education, incentive programs, free services such as irrigation audits, and more.

Did you know that Florida withdraws more groundwater than any other state east of the Mississippi? Our groundwater is a clean, affordable source of drinking water, but it is not an inexhaustible resource. If we do not conserve our groundwater, we may have to resort to alternative sources of drinking water such as surface water treatment and/or desalination, both of which are much more costly than our current source

of water, the Floridan Aquifer. The economically and environmentally sensible solution is to conserve the groundwater resources we currently utilize.

Irrigation can account for more than 50% of residential water use. You can conserve water by following the watering restrictions listed below. The City of Winter Springs encourages you to request a free irrigation audit to learn how you can maintain a healthy, green lawn while irrigating efficiently and reducing your monthly water bill.

To schedule an irrigation audit, please contact us at 407-327-1800.

Time of Year	Homes with odd numbered or no address	Homes with even numbered addresses	Non-residential Properties
Daylight Saving Time	Wednesday / Saturday	Thursday / Sunday	Tuesday / Friday
Eastern Standard Time	Saturday	Sunday	Tuesday

- ▶ Daylight Saving Time: Second Sunday in March until the first Sunday in November
- ▶ Eastern Standard Time: First Sunday in November until the second Sunday in March
- ▶ Water only when needed and not between 10 a.m. and 4 p.m.
- ▶ Water for no more than one hour per zone.
- ▶ Restrictions apply to private wells and pumps, ground or surface water, and water from public and private utilities. Some exceptions apply.

WATER WORKS - THE PURSUIT OF EXCELLENCE

Water Works is a vigorous program for achieving the highest water quality. The program was designed to improve the City's water aesthetics and to upgrade the City's current wastewater, reuse, and stormwater infrastructure.

Water Works is a multi-year program that began in 2011 and focuses on improving City facilities and infrastructure related to water. These projects encompass all the City utilities, including the three water treatment plants, both wastewater treatment plants, the water distribution and sewer collection system, the reuse system and augmentation plant, and the stormwater system of ponds, culverts, and pipelines.

Phase 1, which began in 2011, included \$3.5 million for the construction of the Lake Jessup Reclaimed Water Augmentation Plant and a \$6.3 million drinking water system upgrade in 2015 at Water Treatment Plant No. 1. The Water Treatment Plant upgrade targeted the removal of undesired minerals and improvement of water quality. In addition to improvements to the drinking water system, Phase 1 also included four major stormwater projects. These projects identified and cleaned out debris and sediment from Hurricane Irma and focused on the stabilization of streambanks.

Phase 2 of this intensive plan includes improving the **taste and smell** of the drinking water. The City has engaged two of the World's leading engineering firms Carollo Engineers, Inc. and Kimley-Horn and Associates, Inc. to consult with the City on how improvements can be realized. This phase is currently underway. In late 2021, the City completed improvements at Water Treatment Plant No. 1 that increased system capacity by 30% and reduced chlorine demand by more than 60%. More exciting improvements are on the horizon.

The final phase of the program includes replacement of the City's two wastewater reclamation facilities. In 2022, the City will complete a comprehensive wastewater master plan, dynamic wastewater and reclaimed water hydraulic models, and conceptual design reports for each of the two wastewater reclamation facilities. Final engineering, design, and construction will take place over the next few years.

In 2019, the City contracted with Veolia Water North America - South, LLC (Veolia) to assume the operation, maintenance, and management services for the City's drinking water treatment, wastewater treatment, and reuse utilities.

Learn more about the Water Works program at www.winterspringsfl.org/waterworks.



TERMS AND ABBREVIATIONS

In the test results tables, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions.

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

Level Detected: Results for radiological contaminants, inorganic contaminants, synthetic organic contaminants including Pesticides and herbicides, and volatile organic contaminants are the average at any of the sampling points or the highest detected level at any sampling point, depending on the sampling frequency.

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 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 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 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 ($\mu\text{g}/\text{l}$): 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): Measures the radioactivity in water.



2021 DRINKING WATER QUALITY TEST RESULTS

**Results in the Level Detected column for radiological contaminants, inorganic contaminants, synthetic organic contaminants including Pesticides and herbicides, and volatile organic contaminants are the average at any of the sampling points or the highest detected level at any sampling point, depending on the sampling frequency.

Inorganic Contaminants

Contaminant and Unit of Measurement	Date of Sample	MCL Violation (Y/N)	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic (ppb)	2/20	No	0.16	0.00-0.16	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	2/20	No	0.0092	0.0057-0.0092	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	2/20	No	0.42	0.17-0.42	4	4	Erosion of natural deposits; Water additive to promote strong teeth.
Nitrate (as Nitrogen) (ppm)	1/21-12/21	No	0.18	0.012-0.18	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	2/20	No	11.0	11.0	N/A	160	Salt water intrusion, leaching from soil

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement	Date of Sample	AL Violation (Y/N)	90 th Percentile Result	Number of Sampling Sites Exceeding	MCLG	MCL	Likely Source of Contamination
Lead (ppb) (Tap Water)	6/21	No	2.0	0	15	15	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm) (Tap Water)	6/21	No	0.51	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Stage 1 Disinfectants and Disinfection By-Products

Contaminant and Unit of Measurement	Date of Sampling	MCL Violation (Y/N)	Level Detected	Range of Results	MRDG	MRDL	Likely Source of Contamination
Chlorine (ppm)	1/21-12/21	No	1.35 Annual Average	0.45-2.00	4	4	Water additive used to control microbes

Stage 2 Disinfectants and Disinfection By-Products

Contaminant and Unit of Measurement	Date of Sampling	MCL Violation (Y/N)	Level Detected	Range of Results	MCLG or MRDG	MCL	Likely Source of Contamination
Total Trihalomethanes System (ppb)	1/21-12/21	No	52.7	39.4-52.7	N/A	80	By-product of drinking water disinfection
Haloacetic Acids System (HAA5) (ppb)	1/21-12/21	No	24.4	23.8-24.4	N/A	60	By-product of drinking water disinfection

Monitoring Lead and Contaminant Sources

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water comes primarily from materials and components associated with service lines and home plumbing. The City of Winter Springs is responsible for providing high quality drinking water, but cannot control the variety of materials used in residential 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 www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater. 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 storm water 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 storm water 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 storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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.

Monitoring Various Contaminants

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 measures to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the EPA's Safe Drinking Water Hotline (1-800-426-4791).



City of Winter Springs
1126 East State Road 434
Winter Springs, FL 32708

2021 ANNUAL DRINKING **WATER QUALITY** **REPORT**

