



City of Winter Springs 2017 Annual Drinking Water Quality Report

PWS ID No. 3590879



City of Winter Springs

2017 Annual Drinking Water Quality Report

We're very pleased to provide you with the Annual Drinking Water Quality Report for the 2017 calendar year. We want to keep you informed about the water quality and excellent services we have delivered to you. Our goal is and always has been to provide to you with a safe and dependable supply of drinking water.

Our water is obtained from the Floridan Aquifer and is chlorinated for disinfection, public health, and safety. If you have any questions about this report or your water utility, please contact the Water Treatment Facility at 407-327-8992 Monday through Friday from 8:00 am to 4:00 pm.

In 2017, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment of our system. The assessment was conducted to identify any potential sources of contamination in the vicinity of our groundwater supply wells. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

The City of Winter Springs 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, 2017. Data obtained before January 1, 2017, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

In the table below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

- 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.
- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Initial Distribution System Evaluation (IDSE): 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 Total Trihalomethanes (TTHMs) 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.
- 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 (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.
- Nephelometric Turbidity Unit (NTU): Measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

- 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): Measures the radioactivity in water.
- Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

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 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>.

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 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.

To ensure that tap water is safe to drink, the Environmental Protection Agency (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 EPA's Safe Drinking Water Hotline at 1-800-426-4791.

In our continuing efforts to maintain a safe and dependable water supply, it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

Table 1: City of Winter Springs 2017 Drinking Water Quality Results

Radiological Contaminants							
** Results in the Level Detected column for radiological contaminants, inorganic contaminants, synthetic organic contaminants including pesticides and herbicides, and volatile organic contaminants are the highest average at any of the sampling points or the highest detected level at any sampling point, depending on the sampling frequency.							
Contaminant and Unit of Measurement	Date of Sample Analysis	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Radium 226 + 228 or combined radium (pCi/L)	1/17	N	1.9	1.4 – 1.9	0	5	Erosion of natural deposits
Inorganic Contaminants							
Contaminant and Unit of Measurement	Date of Sample Analysis	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Barium (ppm)	1/17	N	0.012	0.0085-0.012	N/A	2	Discharge from drilling waste; Erosion of natural deposits
Fluoride (ppm)	1/17	N	0.31	0.24-0.31	4	4	Discharge from fertilizer and aluminum factories
Chromium (ppb)	1/17	N	0.7	ND-0.7	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Sodium (ppm)	1/17	N	33	14-33	N/A	160	Salt water intrusion, leaching from soil
Lead and Copper (Tap Water)							
Contaminant and Unit of Measurement	Date of Sample Analysis	AL Violation (Y/N)	Level Detected	Number of Sites Exceeding AL	MCLG	MCL	Likely Source of Contamination
Copper (ppm) (Tap Water)	8/17	N	0.18	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb) (Tap Water)	8/17	N	2.6	0	15	15	Corrosion of household plumbing systems; erosion of natural deposits
Volatile Organic Contaminants							
Contaminant and Unit of Measurement	Date of Sample Analysis	MCL Violation (Y/N)	Level Detected	Number of Sites Exceeding AL	MCLG	MCL	Likely Source of Contamination
Cis-1,2-dichloroethylene (ppb)	1/18	N	1.3	0	70	70	Discharge from industrial chemical factories

Stage 1 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
Chlorine (ppm)	1/17-12/17	N	1.21	1.04 - 1.58	MRDLG = 4	MRDL = 4	Water additive used to control microbes
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 System (HAA5) (ppb)	1/17-12/17	N	29 (Highest LRAA)	4.35 - 34.84	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes System (ppb)	1/17-12/17	Y	101 (Highest LRAA)	16.39 - 99.49	N/A	80	By-product of drinking water disinfection
Total Trihalomethanes 1626 Wrentham Ct. (ppb)	1/17-12/17	Y	101	60.61 - 99.49	N/A	80	By-product of drinking water disinfection
Total Trihalomethanes 647 Oneida Ln. (ppb)	1/17-12/17	Y	93	16.39 – 89.20	N/A	80	By-product of drinking water disinfection

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. Our water system was in violation of federal and state water quality standards for Total Trihalomethanes (TTHMs) from 01/17 through 12/17. The TTHM MCL violations occurred at 1626 Wrentham Ct. and 647 Oneida Ln. The levels of TTHMs are shown in Table 1. Some people who drink water containing TTHMs in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

During 2017, the City did not monitor the second set of synthetic organic contaminants, and therefore cannot be sure of the drinking water quality during that time. The first set of results were undetectable. The replacement second set of results collected 1/24/2018 were also undetectable.

The City's water treatment personnel are addressing the TTHM MCL exceedance by increasing flushing to reduce water age, optimizing chlorine levels, and reconfiguring chlorine injection points and well run cycles. In January 2018, the City completed Ion Exchange water treatment improvements at an approximate cost of \$6,000,000 to eliminate the TTHM MCL exceedance, as required by FDEP.

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 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 Water Conservation Program

As part of our commitment to preserving our natural resources while better serving the community, the City of Winter Springs has implemented a Water Conservation Program. The 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 the City's Utilities Department at 407-327-5987, ygoomez@winterspringsfl.org. You can also visit our water conservation webpage on the City website at www.winterspringsfl.org.

Time of year	Homes with odd numbered or no addresses	Homes with even numbered addresses	Non-residential properties
Daylight Saving Time	Wednesday/Saturday	Thursday/Sunday	Tuesday/Friday
Eastern Standard Time	Saturday	Sunday	Tuesday
<ul style="list-style-type: none"> • 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 • An odd numbered address is one that ends in 1, 3, 5, 7 or 9. • An even numbered address is one that ends in 0, 2, 4, 6 or 8. • 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. 			

These rules apply if you are using potable water or a private well for irrigation. If you have reclaimed water for irrigation, then you may water two days per week year-round.



City of Winter Springs Seminole County - Dovera 2017 Annual Drinking Water Quality Report

PWS ID No. 3594240



City of Winter Springs - Seminole County - Dovera 2017 Annual Drinking Water Quality Report

We're very pleased to provide you with the Annual Drinking Water Quality Report for the 2017 calendar year 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. We want to keep you informed about the water quality and excellent services we have delivered to you. Our goal is and always has been to provide to you a safe and dependable supply of drinking water.

The drinking water for this area comes from Seminole County's Southeast Service Area and is obtained from groundwater wells. The water is ozonized, filtered with granular activated carbon, chlorinated for disinfection purposes, and fluoridated for dental purposes. If you have any questions about this report or your water utility, please contact the City of Winter Springs at 407-327-8992 Monday through Friday from 8:00 am to 4:00 pm.

In 2017, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment for Seminole County. There were no potential sources of contamination identified for this system. 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.

In the table below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

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- 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.
- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Initial Distribution System Evaluation (IDSE): 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 Total Trihalomethanes (TTHMs) 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.
- 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.
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- Nephelometric Turbidity Unit (NTU): Measures the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

- 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): Measures the radioactivity in water.
- Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

The City did not complete the required sampling for the 2017 Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAAs) and, therefore, was in violation of monitoring and reporting requirements. Since the required samples were not obtained, we cannot say whether the contaminants were present in your drinking water, and are unable to tell you if your health was at risk during that time. The monitoring period was from 1/2017 to 12/2017. Previous results showed all test levels below the required MCL. The City will be collecting samples in July 2018.

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 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>.

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 EPA's Safe Drinking Water Hotline at 1-800-426-4791.

In our continuing efforts to maintain a safe and dependable water supply, it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

**Table 1: Seminole County Southeast Water System (City of Winter Springs)
2017 Drinking Water Quality Results**

Inorganic Contaminants							
Contaminant and Unit of Measurement	Date of Sample Analysis	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic (ppb)	2/17	N	0.13	0.13	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	2/17	N	0.0097	0.0072 - 0.0097	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	2/17	N	0.59	0.55 – 0.59	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum level of 0.7 ppm
Nitrate (as Nitrogen) (ppm)	2/17	N	0.3	0.25 - 0.30	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	2/17	N	1.0	1	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	2/17	N	15.0	11-15	NA	160	Salt water intrusion, leaching from soil
Lead and Copper (Tap Water - Dovera)							
Contaminant and Unit of Measurement	Date of Sample Analysis	AL Violation Y/N	90th Percentile Result	Number of sampling sites exceeding the AL	MCLG	AL	Likely Source of Contamination
Copper (tap water) (ppm)	6/16	N	0.015	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	6/16	N	1.4	0	15	15	Corrosion of household plumbing systems, erosion of natural deposits

Stage 1 Disinfectants and Disinfection By-Products							
Contaminant and Unit of Measurement	Date of Sample Analysis	MCL Violation (Y/N)	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Chlorine (ppm)	1/17-12/17	N	1.17 Annual Average	0.40 – 1.50	MRDG = 4	MRDL = 4	Water additive used to control microbes
Stage 2 Disinfectants and Disinfection By-Products							
Contaminant and Unit of Measurement	Date of Sample Analysis	MCL Violation (Y/N)	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Haloacetic Acids (five) (HAA5) (ppb)	7/17 – 9/17	Y	Not Available	Not Available	N/A	60	By-product of drinking water disinfection
TTHM Total Trihalomethanes (ppb)	7/17 – 9/17	Y	Not Available	Not Available	N/A	80	By-product of drinking water disinfection
Microbiological Contaminants							
Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL Violation Y/N	Highest Monthly Percentage/ Number	MCLG	MCL	Likely Source of Contamination	
Total Coliform Bacteria	1/17-12/17	N	0	0	For systems collecting at least 40 samples per month: presence of coliform bacteria in >5% of monthly samples. For systems collecting fewer than 40 samples per month: presence of coliform bacteria in >1 sample collected during a month.	Naturally present in the environment	

Our water system was in violation of federal and state water quality standards for the July 2017 bacteriological monitoring. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. The City completed make-up samples for the missed sampling in August 2017 and no bacteria was detected.

City of Winter Springs Water Conservation Program

As part of our commitment to preserving our natural resources while better serving the community, the City of Winter Springs has implemented a Water Conservation Program. The 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 the City's Utilities Department at 407-327-5987, ygoomez@winterspringsfl.org. You can also visit our water conservation webpage on the City website at www.winterspringsfl.org.

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- 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.

These rules apply if you are using potable water or a private well for irrigation. If you have reclaimed water for irrigation, then you may water two days per week year-round.