



# The City of Winter Springs 2015 Annual Drinking Water Quality Report



# *City of Winter Springs*

## *2015 Annual Drinking Water Quality Report*

We're very pleased to provide you with the Annual Water Quality Report for the 2015 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 a safe and dependable supply of drinking water.

Our water is obtained from the Florida Aquifer and is chlorinated for disinfection and 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 5:00 pm.

In 2015, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment of our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There were (2) 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](http://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, 2015. Data obtained before January 1, 2015, 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 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.

**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 trihalomethanes (THMs) 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 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.

**Nephelometric Turbidity Unit (NTU) -** measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**“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 ( $\text{mg}/\text{l}$ ) – 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.**

**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:

(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 result 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 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.

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.

### Test Result Table:

#### 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/AL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Gross Alpha (pCi/l)	08/11	N	7.4	1.5-7.4	0	15	Erosion of natural deposits
Radium 226 + 228 or combined radium (pCi/L)	08/11	N	1.7	0.8-1.7	0	5	Erosion of natural deposits

#### Inorganic Contaminant

Contaminant and Unit of Measurement	Date of sample analysis	MCL/AL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Barium (ppm)	07/14	N	.009	.006-.009	2	2	Discharge from drilling waste; Erosion of natural deposits.



Lead (point of entry) (ppb)	07/14	N	12.1	ND – 12.1	N/A	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Mercury (inorganic) (ppb)	07/14	N	0.043	0.038-0.043	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Sodium (ppm)	07/14	N	42	15 - 42	N/A	160	Salt water intrusion, leaching from soil

#### Lead and Copper Home Sample

Contaminant and Unit of Measurement	Date of sample analysis	MCL/AL Violation Y/N	Level Detected	Number of Sites exceeding the AL	MCLG	MCL	Likely Source of Contamination
Copper (tap water) (ppm)	7/14	N	0.177	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

#### 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
Chlorine (ppm)	01/14 – 12/14	N	1.62	0.81 – 2.24	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acid (HAA5) (ppb)	1/15-12/15	N	33.98	24.66-38.47	N/A	60	By-product of drinking water disinfection
Total Trihalomethane (TTHM) (ppb)	01/15-12/15	Y	98.24	51.00-117.42	N/A	80	By-product of drinking water disinfection

## Unregulated Contaminants

Contaminant	Date of Sampling	MRL	Average Level Detected	Range	MCL	Likely Source of Contamination
Chromium-6	10-23-13 4-11-14	0.03	0.053	0.035 - 0.071	NA	Naturally occurring element found in soil
Strontium	10-23-13 4-11-14	0.3	225	145 -304	NA	Natural occurring element found in soil and present in plants and animals
Chromium	10-23-13 11-26-13 4-11-14	0.2	0.25	0.21 - 0.29	NA	Discharge from steel and pulp mills; erosion of natural deposits
Vanadium	10-23-13 10-30-13 4-11-14	0.2	0.27	0.24 - 0.30	NA	Natural occurring element metal found in rocks and soil
Chlorate	10-23-13 4-11-14	20	407	24 - 789	NA	Agricultural defoliant desiccant; disinfection by-product
1,4-dioxane	10-23-13 4-11-14	0.07	0.097	0.084 - 0.110	NA	Cyclic aliphatic ether, used as a solvent or solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos

*We monitored for Unregulated Contaminants (UCs) in 2015 as part of a study to help the U.S. Environmental Protection Agency (EPA) determine the occurrence in drinking water of UCs and whether or not these contaminants need to be regulated. At present, no health standards (for example, maximum contaminant levels) or likely sources have been established for UCs. However, we are required to publish the detected analytical results of our UC monitoring in our annual water quality report. For the complete list of results, including the non-detected contaminants, contact Waylon Locklear at 407-327-8992. If you would like more information on the EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.*

TTHM [Total Trihalomethanes]. Some people who drink water containing trihalomethanes 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.

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 (TTHM) from 01/15 through 12/15. The levels of Total Trihalomethane are shown in the Test Results Table. Our system is in the process of correcting the violation by increased flushing to reduce water age, optimizing chlorine levels, reconfigured our chlorine injection points and well run cycles.

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. By April 2017, the City will have completed Ion Exchange water treatment improvements at a projected cost of \$6,000,000 to eliminate the TTHM MCL exceedences, as required by the Florida Department of Environmental Protection.

*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).*

### 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. For more information on the water conservation program or to schedule an irrigation audit, please contact Water Conservation Coordinator, Stephanie Monica at 407-327-6584, [smonica@winterspringsfl.org](mailto:smonica@winterspringsfl.org). You can also visit our water conservation webpage on the City website at [www.winterspringsfl.org](http://www.winterspringsfl.org).

Time of year	Homes with odd numbered or no addresses	Homes with even numbered addresses	Nonresidential properties
Daylight saving time	Wednesday/Saturday	Thursday/Sunday	Tuesday/Friday
Eastern Standard Time	Saturday	Sunday	Tuesday
<ul style="list-style-type: none"> <li>• Daylight saving time: Second Sunday in March until the first Sunday in November</li> <li>• Eastern Standard Time: First Sunday in November until the second Sunday in March</li> <li>• An odd numbered address is one that ends in 1, 3, 5, 7 or 9.</li> <li>• An even numbered address is one that ends in 0, 2, 4, 6 or 8.</li> <li>• Water only when needed and not between 10 a.m. and 4 p.m.</li> <li>• Water for no more than one hour per zone.</li> <li>• Restrictions apply to private wells and pumps, ground or surface water and water from public and private utilities.</li> <li>• Some exceptions apply.</li> </ul>			

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.