



# 2017 Annual Drinking Water Quality Report

PSW ID# 6291882

**W**e are pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water.

Our water is sourced from five ground water wells at depths from 120 to 340 feet and the City of Tampa Water System. The water, pumped from the Floridan Aquifer, is chlorinated for disinfection purposes, treated with zinc phosphate for corrosion control, and distributed to the campus. Greek Housing and USF Health are supplied separately by the City of Tampa Water System.

The Florida Department of Environmental Protection (FDEP) conducted a statewide assessment of public drinking water systems beginning in 2004. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. A 2017 assessment indicated there are 14 potential source(s) of contamination identified for this system with a moderate susceptibility level(s). 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). If you have any questions concerning this report or your water utility, please contact **William Land, Director, Environmental Health & Safety, Facilities Management**, at (813) 974-4036. We encourage our customers to be informed about their water utility.

The University of South Florida routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Except where indicated, this report is based on the monitoring results 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. The Environmental Protection Agency (EPA) requires monitoring of over 80 drinking water contaminants; however, the contaminants listed in the provided tables are the only contaminants detected in your drinking water during the referenced period. Please note, Secondary Contaminants (non-health based) were monitored during 2017 and the results indicated compliance with all Secondary Contaminant standards.

This report shows our water quality results and what they mean.

In the tables on the following pages, you may find terms and abbreviations that may not be familiar to you. To familiarize you with these terms, we have provided the following definitions:

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

**Level 1 Assessment:** A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

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

**MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goals (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.

**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 disinfectant to control microbial contaminants.

**N/A:** Means not applicable.

**ND:** Means not detected and indicates that the substance was not found by laboratory analysis.

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

**Units:**

**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):** Measure of radioactivity in the water.

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.

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. USF 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 are available from the Safe Drinking Water Hotline or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

**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 stormwater 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 stormwater 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 stormwater runoff, and septic systems.

**(E) Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

**Special Information for Immuno-Compromised People Should Know About Drinking Water**

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. Environmental Protection Agency (EPA) and Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the *Environmental Protection Agency's Safe Drinking Water Hotline* at **1-800-426-4791**.

In order to ensure that tap water is safe to drink, 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the *Safe Drinking Water Hotline* at **1-800-426-4791**.

**T E S T R E S U L T T A B L E S**

**Microbiological Contaminants**

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	TT Violation Y/N	Result	MCLG	TT	Likely Source of Contamination
1. Total Coliform Bacteria* (positive samples)	07/2017	Y	Positive	N/A	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.

### 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
2. Antimony (ppb)	09/2017	N	0.05	0.05	6	6	Discharge from petroleum refineries; fire retardants; ceramics, electronics; solder.
3. Arsenic (ppb)	09/2017	N	0.29	0.29	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
4. Barium (ppm)	09/2017	N	0.019	0.019	2	2	Discharge from drilling wastes; discharge from metal refineries; erosion of natural deposits.
5. Cadmium (ppb)	09/2017	N	0.17	0.17	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste barriers and paints.
6. Nickel (ppb)	09/2017	N	8.6	8.6	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil.
7. Nitrate (as Nitrogen) (ppm)	09/2017	N	0.95	0.95	10	10	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.
8. Sodium (ppm)	09/2017	N	10	10	N/A	160	Salt water intrusion; leaching from soil.
9. Thallium (ppb)	09/2017	N	0.07	0.07	0.5	2	Leaching from ore processing sites; discharge from electronics, glass, and drug factories.

### Radiological 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
10. Gross Alpha (including Uranium) (pCi/L)	09/2017	N	8.2	8.2	0	15	Erosion of natural deposits.
11. Radium 226 + 228 or Combined Radium (pCi/L)	09/2017	N	2.5	2.5	0	5	Erosion of natural deposits.
12. Uranium (µg/L)	09/2017	N	2.5	N/A	0	30	Erosion of natural deposits.

Results in the Level Detected column of 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 sample point, depending on the sampling frequency.

### Copper and Lead (Tap Water)

Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	AL Violation Y/N	90 <sup>th</sup> Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
13. Copper (tap water) (ppm)	06/2017	N	1.1	2	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
14. Lead (tap water) (ppb)	06/2017	N	2.1	1	0	15	Corrosion of household plumbing systems; erosion of natural deposits.

### 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 Results	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
15. Chlorine (ppm)	Monthly 2017	N	1.22	0.2 -1.9	MRDLG=4.0	MRDL=4.0	Water additive use to control microbes.

For chlorine, the level detected is the highest running annual average (RAA), computer 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

Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Results	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
16. Haloacetic Acids (five) (HAA5) (ppb)	Quarterly 2017	N	13.2	6.3 -14.6	N/A	MCL=60	By-product of drinking water disinfection.
17. TTHM (Total Trihalomethanes) (ppb)	Quarterly 2017	N	53.8	24.6 -55.4	N/A	MCL=80	By-product of drinking water disinfection.

\* Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this

occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments. During the past year we were required to conduct one (1) Level 1 assessment. One (1) Level 1 assessment was completed. In addition, we were required to take no corrective actions.