2021 Annual Drinking Water Quality Report of the City of Leesburg

Annual Water testing performed in 2021

PWS ID #
3350745 City,
3351566 East,
3354869 Highland Lakes,
3354650 Plantation,
3354929 Royal Highlands

Meeting the Challenge

We are pleased to provide you our annual water quality report covering all testing performed between January 1 and December 31, 2021. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best quality drinking water to you. Our constant goal is to provide you with a safe and dependable supply of drinking water. As new challenges to drinking water safety emerge, we remain vigilant in meeting our goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

We ask that all our customers help us conserve and protect our water sources, which are the heart of our community, our way of life and our children's future.

For more information about this report, or for any questions related to your drinking water, please call Al Purvis, Chief Water Operator, at (352)728-9835, or visit our Web site at http://leesburgflorida.gov/ccr

Community Participation

You are invited to participate in our commission meetings and voice your concerns about your drinking water. We meet the second and fourth Monday of each month at 5:30 p.m. at Leesburg City Hall located at 501 West Meadow Street in Leesburg, Florida.

Where Does My Water Come From?

All of our Treatment Facilities, which include the City, East (Airport and Mall), Highland Lakes, Plantation, and Royal Highlands, take ground water from the Floridan Aquifer within the Ocklawaha Watershed.
Liquid Sodium Hypochlorite (NaOCL) is used at all of the City of Leesburg Treatment Facilities as disinfectant. This disinfectant is used as a precaution against any bacteria that may be present. We carefully monitor the amount of disinfection used, adding the lowest quantity necessary to protect the safety of our water without compromising taste. Our water systems have seventeen (17) potable wells, ranging in depth from 250 feet to 1000 feet. We have storage capacity in the form of ground storage tanks and elevated towers to store 5.975 million gallons of water. All systems combined serve a total of 20,369 meter connections with an average daily flow of 7.532 million gallons. Our water hardness ranges between 7 & 8 grains or 125 to 143 mg of calcium carbonate per liter of water.

Source Water Assessment

In 2021, the Department of Environmental protection performed a Source Water Assessment on our systems. These assessments are conducted to provide information about any potential sources of contamination near our wells. The assessment shows ten potential sources of contamination with a low to high susceptibility level for the City system. A search of the data sources indicated four low potential sources of contamination with a low susceptibility level for the Leesburg East (Airport & Mall system). One potential source of contamination with a low susceptibility level was identified for the Highland Lakes system. No potential sources of contamination have been indicated for the Plantation and Royal Highlands systems. The assessment results are available on the FDEP Source Water Assessment and Protection Program Web site at https://fldep.dep.state.fl.us/swapp/

Substances That Could Be in 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. 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.

Lead in Home Plumbing

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. We are 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 Drinking Water Hotline, or at www.epa.gov/safewater/lead

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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).

Definitions

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

MCL or Maximum Contaminant Level: 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.

MCLG or 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.

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

DSMRT Distribution System Maximum Residence Time.

EPTDS Entry Point to the Distribution System

IDSE Initial Distribution System Evaluation: 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 Halo Acetic 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.

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

MRDL or 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 or 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 disinfectants to control microbial contaminants.

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

NA means not applicable.

pCi/L Picocurie per liter (pCi/L) - measure of the radioactivity in water

ppb Parts per billion or Micrograms per liter (µg/l) – one part by weight of analyte to 1 billion parts by weight of the water sample.

ppm Parts per million or Milligrams per liter (mg/l) – one part by weight of analyte to 1 million parts by weight of the water sample.

Sampling Results

The City of Leesburg Water Systems routinely monitor 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.

PRIMARY REGULATED CONTAMINANTS

Radioactive Contaminants						**City**	**Airport**	**Mall**	**H.L.**	**Plant.**	**R.H.**	
Contaminant and Unit of Measurement	**Dates of sampling (mo. /yr.)**	**MCL Violation Y/N**	**Range of Results**	**MCLG**	**MCL**	**Level Detected**	**Level Detected**	**Level Detected**	**Level Detected**	**Level Detected**	**Level Detected**	**Likely Source of Contamination**
Alpha emitters (pCi/L)	1/2020	NO	NA	0	15	1.5	1.9	1.4	2/2021 1.4	1.2	2/2021 5.3	Erosion of natural deposits
Radium 226 + 228 or combined radium (pCi/L)	1/2020	NO	NA	0	5	Radium 226 = 2.0	Radium 226 = 1.1	Radium 226 = 1.0	2/2021 Radium 226 = 2.9	Radium 226 = 1.5	2/2021 Radium 226 = 1.1	Erosion of natural deposits
Inorganic Contaminants												**Likely Source of Contamination**
Barium (ppm)	1/2020	NO	NA	2	2	0.0152	0.0110	ND	1/2021 0.0097	0.00760	1/2021 0.00650	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	1/2020	NO	NA	100	100	2.6	2.3	ND	ND	2.0	1/2021 1.3	Discharge from steel and pulp mills; erosion of natural deposits
Nitrate (as Nitrogen) (ppm)	1/2021	NO	NA	10	10	0.214	0.222	0.213	ND	ND	1.17	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	1/2020	NO	NA	N/A	160	9.24	4.60	5.85	1/2021 8.01	8.51	1/2021 9.56	Salt water intrusion, leaching from soil
Arsenic (ppb)	1/2020	NO	N/A	N/A	10	-	-	-	-	1.4	-	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Selenium (ppb)	1/2020	NO	N/A	50	50	2.3	-	-	-	-	-	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines

Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo. /yr.)	MCL or MRDL Violation Y/N	MCLG or MRDLG = 4	MCL or MRDL = 4.0	City	Airport	Mall	H.L.	Plant.	R.H.	Likely Source of Contamination
Chlorine (ppm)			Range of Results		Results						
1/2021 – 12/2021		NO	1.63 – 2.19		1.91						Water additive used to control microbes
1/2021 – 12/2021		NO	1.55 – 3.34			2.30					
1/2021 – 12/2021		NO	1.55 – 3.34				2.30				
1/2021 – 12/2021		NO	1.69 – 2.83					2.32			
1/2021 – 12/2021		NO	0.80 – 2.49						0.80		
1/2021 – 12/2021		NO	1.53 – 2.62							2.10	

City System Stage 2 – Disinfectant and Disinfection By-Products Sample Site # 1

Contaminant and Unit of Measurement	Dates of sampling (mo. /yr.)	MCL Violation (Y/N)	Level Detected (LRAA)	Range of Results	MCLG	MCL	Likely Source of Contamination
Halo acetic Acids (HAA5) (ppb)	1/2021 & 10/2021	NO	29.80	26.60 – 29.80	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	1/2021 & 10/2021	NO	34.90	27.40 – 34.90	N/A	80	By-product of drinking water disinfection

East System Stage 2 - Disinfectant and Disinfection By-Products

Contaminant and Unit of Measurement AIRPORT	Dates of sampling (mo. /yr.)	MCL Violation (Y/N)	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Halo acetic Acids (HAA5) (ppb)	1/2021	NO	24.60	N/A	N/A	60	By-product of drinking water disinfection
Contaminant and Unit of Measurement MALL	**Dates of sampling (mo. /yr.)**	**MCL Violation (Y/N)**	**Level Detected**	**Range of Results**	**MCLG**	**MCL**	**Likely Source of Contamination**
Total Trihalomethanes (TTHM) (ppb)	7/2021	NO	28.70	N/A	N/A	80	By-product of drinking water disinfection

Highland Lakes System Stage 2 – Disinfectant and Disinfection By-Products

Contaminant and Unit of Measurement	Dates of sampling (mo. /yr.)	MCL Violation (Y/N)	Level Detected (LRAA)	Range of Results	MCLG	MCL	Likely Source of Contamination
Halo acetic Acids (HAA5) (ppb)	1/2021 & 7/2021	NO	15.30	15.1 – 36.40	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	1/2021 & 7/2021	NO	23.45	18.2 – 24.50	N/A	80	By-product of drinking water disinfection

Plantation System Stage 2 - Disinfectant and Disinfection By-Products Sample Site # 1							
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**
Halo acetic Acids (HAA5) (ppb)	7/2021	NO	39.90	N/A	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	7/2021	NO	35.90	N/A	N/A	80	By-product of drinking water disinfection

Plantation System Stage 2 - Disinfectant and Disinfection By-Products Sample Site # 2							
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**
Halo acetic Acids (HAA5) (ppb)	7/2021	NO	28.80	N/A	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	7/2021	NO	36.00	N/A	N/A	80	By-product of drinking water disinfection

Royal Highlands System Stage 2 - Disinfectant 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**
Halo acetic Acids (HAA5) (ppb) Sample Site # 2	7/2021	NO	20.00	N/A	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)(ppb) Sample Site#1	7/2021	NO	24.50	N/A	N/A	80	By-product of drinking water disinfection

Lead and Copper (Tap water samples were collected throughout the communities)							
City							
Contaminant and Unit of Measurement	**Dates of sampling (mo. /yr.)**	**AL Exceeded (Y/N)**	**90th Percentile Result**	**No. of sampling sites exceeding the AL**	**MCLG**	**AL (Action Level)**	**Likely Source of Contamination**
Copper (tap water) (ppm)	6/2020	NO	0.744	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	6/2020	NO	5.7	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits
East (Airport / Mall)							
Copper (tap water) (ppm)	3/2021 & 7/2021	NO	3/2021 = 0.558 7/2021 = 0.351	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	3/2021 & 7/2021	NO	3/2021 = 3.9 7/2021 = 1.6	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

Lead and Copper (Tap water samples were collected throughout the communities)							
Highland Lakes							
Copper (tap water) (ppm)	**6/2020**	**NO**	**0.631**	**0**	**1.3**	**1.3**	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	**6/2020**	**NO**	**1.0**	**0**	**0**	**15**	Corrosion of household plumbing systems; erosion of natural deposits
Plantation							
Copper (tap water) (ppm)	**6/2020**	**NO**	**0.577**	**0**	**1.3**	**1.3**	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	**6/2020**	**NO**	**1.0**	**0**	**0**	**15**	Corrosion of household plumbing systems; erosion of natural deposits
Royal Highlands							
Copper (tap water) (ppm)	**6/2020**	**NO**	**0.776**	**0**	**1.3**	**1.3**	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	**6/2020**	**NO**	**1.0**	**0**	**0**	**15**	Corrosion of household plumbing systems; erosion of natural deposits

The City of Leesburg has been monitoring for unregulated contaminants (UCs) 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) have been established for UCs. However, we are required to publish the analytical results of our UC monitoring in our annual water quality report. 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

Unregulated Contaminants									
Contaminant and Unit of Measurement	**Date of sampling (mo. /yr.)**	**Range**	**City**	**Airport**	**Mall**	**H.L.**	**Plant.**	**R.H.**	**Likely Source of Contamination**
			Level Detected						**N/A**
Perfluorohexanesulfonic acid (µg/l)	**3/2021**	**N/A**	**0.0042**	**0.00073**	**0.0020**		**0.0012**		
Perfluorooctanesulfonic acid (µg/l)	**3/2021**	**N/A**	**0.0065**	**0.0014**	**0.0059**		**0.0024**	**0.0011**	
Perfluorohexanoic acid (µg/l)	**3/2021**	**N/A**			**0.0016**				
Perfluorooctanoic acid (µg/l)	**3/2021**	**N/A**			**0.0023**				
Perfluorobutanesulfonic acid (µg/l)	**3/2021**	**N/A**	**0.0018**		**0.0011**			**0.0013**	

A Gallon saved, is a Gallon earned

There are a number of ways to conserve water, but they all start with you.

Water = Life - Conservation = Future

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water bill. Here are a few suggestions:

Conservation measures you can use inside your home include:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets and appliance.
- Wash only full loads of laundry.
- Run Dishwashers only if fully loaded.
- Take shorter showers.
- Turn water off when brushing your teeth.

You can conserve outdoors as well:

- **Water the lawn and garden early morning or evening. Do not water between the hours of 10 A.M. and 4 P.M, and only water on your designated days**
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.

Information on other ways you can help conserve water can be found at: www.epa.gov/safewater/publicoutreach/index.html.
Also at: https://www.sjrwmd.com

Contamination from Cross-Connections

Cross-connections can contaminate drinking water distribution systems; this is a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems) or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand) causing contaminants to be sucked out from the equipment and into the drinking water line (back siphonage). Outside water, taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination. Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained.

We require home and business owners that are connected to the City of Leesburg water systems to have a Backflow Prevention device installed properly, and tested annually as required by the City of Leesburg Ordinance, State Statue and by FDEP Rule 65.555.360 to ensure that it is providing maximum protection. In addition to the annual test, we require a copy of the annual test report for our records.
For more information, review the Cross-Connection Control Manual from the U.S. EPA's Web site at www.epa.gov/safewater/crossconnection.html.

Reduced Pressure Backflow Preventer (RP)

Double Check Valve (DC)

Pressure Vacuum Breaker (PVB)