

SOUTHERN 2022 Annual Water Quality Reports



WHAT WE DO TODAY SHAPES TOMORROW'S FUTURE

Toho Water Authority is pleased to present its 2022 Annual Drinking Water Report, designed to inform you about the quality of the water we deliver every day. The report includes test results from water quality analyses conducted throughout 2022.

**#TRUST
TOHO
CARES**

OUR ANNUAL DRINKING WATER REPORT

Toho Water Authority is pleased to present its annual drinking water report. The name of the report reflects the year the data was collected rather than the year published. This report is designed to inform you about the quality of the water we deliver every day. It is our pleasure to report that the drinking water we produce follows all federal and state water quality regulations. The water quality information in this report is organized by service areas and identified by the associated Public Water System (PWS) number. Use the map to determine your service area, then go to the associated water quality data. To request a printed copy of this report, please contact our Customer Service team at 407-944-5000.



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SERVING OUR COMMUNITY

Toho Water Authority (Toho) is the largest provider of water, wastewater and reclaimed water services in Osceola County. Toho currently operates 17 water treatment facilities and nine wastewater treatment facilities with the purpose of providing efficient and reliable water services. With a 500 person workforce, Toho treats and distributes approximately 51.6 million gallons of potable water and reclaims 34.3 million gallons of wastewater each day. Toho was established for the sole purpose of providing regional stewardship over water resources in Osceola County.



TOHO'S PROMISE

**Our Customers, Our Community, Our Employees
Trust That Toho Cares**

As an integral part of the community, Toho is dedicated to delivering exceptional services. Whether it's through in-person interactions, phone conversations, or our website, one thing remains certain—we care.

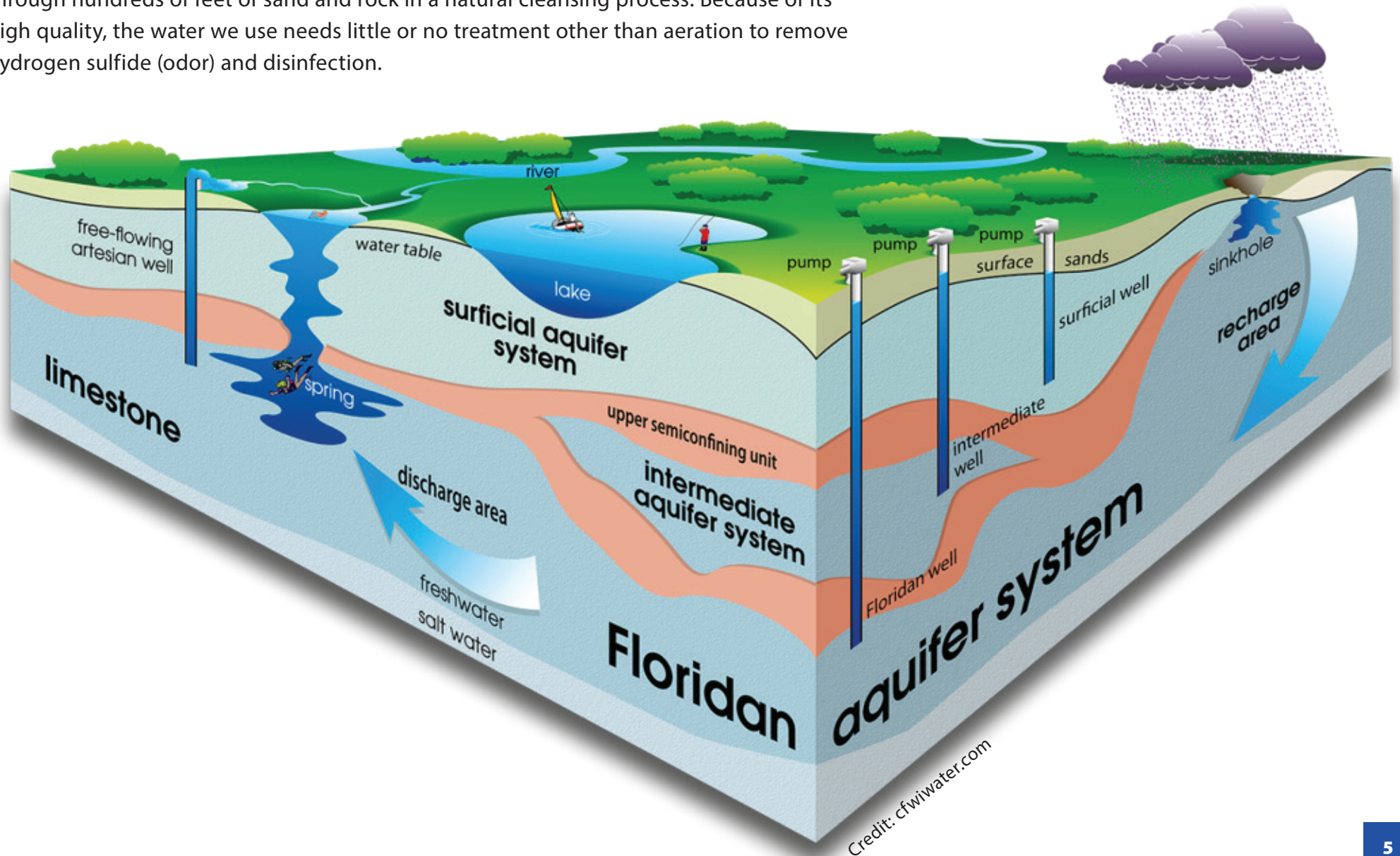
Toho is guided by a seven-member board of supervisors who oversee all operational policies and carefully manage the organization's budget. If you're interested in learning more about Toho, we encourage you to attend our regularly scheduled Board meetings. These meetings are open to the public and take place on the second Wednesday of every month at 5 p.m. in the Boardroom located at 951 Martin Luther King Blvd., Kissimmee, Florida 34741. To access the meeting agenda, please visit tohowater.com.

In compliance with Section 286.26 of the Florida Statutes, we prioritize inclusivity. If you require assistance to participate in any of these proceedings, please reach out to the office of the Executive Director beforehand. You can contact us at 407-944-5130 or via email at tohoattend@tohowater.com.



WATER SOURCE

Underneath Osceola County lies one of the largest pristine reservoirs of fresh groundwater in the country, the Floridan Aquifer. Water from this aquifer is of consistently high quality and is used as the source of potable water for Toho's water system. The aquifer is recharged by rainfall on the Lake Wales Ridge (US 27) in Osceola, Polk and Lake counties that is filtered through hundreds of feet of sand and rock in a natural cleansing process. Because of its high quality, the water we use needs little or no treatment other than aeration to remove hydrogen sulfide (odor) and disinfection.



WATER QUALITY

Toho Water Authority (Toho) delivers to you water that is constantly tested for compliance with federal and state standards and regulations. During the period of January 1st to December 31st 2022, covered by this Consumer Confidence Report, highly trained scientists and technicians performed analyses on samples taken throughout your water system. The results of these analyses showed that the substances for which Toho is required to test, most were found to be at levels in the water substantially lower than the minimum acceptable levels. This brochure is a summary of the water quality provided to our customers. It is a record reflecting the hard work of our employees to bring you high quality water.



STATE REGULATIONS

SWAPP stands for the Source Water Assessment and Protection Program. This program is meant to ensure that your drinking water is safe, not just at the tap, but at its source. The Florida Department of Environmental Protection (FDEP) initiated SWAPP as part of the federal Safe Drinking Water Act. Lakes, rivers, streams, and aquifers make up the drinking water sources in Florida. These source waters can be threatened by potential contaminants such as hazardous chemicals, stormwater runoff, waste disposal sites, and underground storage tanks. It is a national priority to protect these sources and ensure safe drinking water for citizens. SWAPP was created to protect these vital resources.



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 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 (800-426-4791).



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, stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organics, 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.

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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.



SOME PEOPLE may be more vulnerable to contaminants in drinking water than is 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).





REQUIRED ADDITIONAL HEALTH INFORMATION

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.

Toho 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 www.epa.gov/safewater/lead.

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.



GLOSSARY AND ABBREVIATIONS

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. MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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.

RUNNING ANNUAL AVERAGE (RAA): The average of the monitoring period average for a year.

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.

PARTS PER MILLION (PPM) OR MILLIGRAMS PER LITER (MG/L): One part per million corresponds to one minute in two years or a single penny in \$10,000.

PARTS PER BILLION (PPB) OR MICROGRAMS PER LITER (UG/L): One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

PICOCURIES PER LITER (PCI/L): Picocuries per liter is a measure of the radioactivity in water.

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

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

N/A: Means not applicable.



WESTERN A - Hidden Glen B - Western	SOUTHERN C - Poinciana	CENTRAL D - Eastern E - Buenaventura Lakes	EASTERN F - Springlake Village G - Lake Ajay Estates H - Sunbridge I - Bay Lake Estates J - Harmony & Pine Glen	ST. CLOUD K - City of St. Cloud
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AN EXPLANATION OF THE WATER-QUALITY DATA TABLE

The following tables show the results of our water-quality analyses. Every regulated contaminant that we detected in the water, even in the most minute traces, is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement.

As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of our data, though representative, is more than one year old.

National Primary Drinking Water Regulation Compliance

Water Quality Data for community water systems throughout the United States is available at www.epa.gov/safewater.



RADIOACTIVE 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
Alpha emitters (pCi/L)	5/20	N	4.08	ND - 4.08	0	15	Erosion of natural deposits
Radium 226 + 228 or combined radium (pCi/L)	5/20	N	4.08	1.5 - 4.08	0	5	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits

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
Antimony (ppb)	4/20	N	0.81	ND - 0.81	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	4/20	N	1.6	ND - 1.6	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	4/20	N	0.017	0.012 - 0.017	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	4/20	N	0.72	0.086 - 0.72	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promoted strong teeth when at the optimum level of 0.7 ppm
Nitrate (as Nitrogen) (ppm)	2/22	N	1.6	ND - 1.6	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural de-posit
Selenium (ppb)	4/20	N	1.1	ND - 1.1	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	4/20	N	11.9	7.5 - 11.9	N/A	160	Salt water intrusion, leaching from soil

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 Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)	1/22 - 12/22	N	1.9 (LRAA)	0.6 - 2.4	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) [HAA5] (ppb)	1/22 - 12/22	N	22.78 (LRAA)	17.2 - 27.9	N/A	MCL = 60	By-product of drinking water disinfection
Total Trihalomethanes [TTHM] (ppb)	1/22 - 12/22	N	40.04 (LRAA)	30.5 - 51.4	N/A	MCL = 80	By-product of drinking water disinfection

LEAD AND COPPER (TAP WATER)

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)	8/20	N	0.083	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	8/20	N	0.4	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

SECONDARY CONTAMINANTS

Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL Violation Y/N	Highest Result	Range of Results	MCLG	MCL	Likely Source of Contamination
Odor (threshold odor number)	5/20	Y*	8	2 - 8		3	Naturally occurring organics

*In 2020 our system exceeded the MCL for Odor. Secondary contaminants are considered to be aesthetic violations, and they are not considered to have major health effects.

SOURCE WATER ASSESSMENT INFORMATION

In 2022 the Department of Environmental Protection performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There were three potential sources of contamination identified for this system with low susceptibility level, which are petroleum storage tanks. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.



INVESTING IN THE FUTURE

Most of Florida's drinking water comes from the aquifer. To help conserve this potable water resource, Toho is investing in alternative water supplies. In 2021 Toho finished construction of a 400-million-gallon reservoir. A water treatment facility is expected to be built in 2024 off US 192 to treat water from the reservoir. This treatment facility will allow Toho to provide a sustainable alternative water supply option for irrigation services and also includes the ability to add processes to treat surface water to potable standards if needed in the future. Up to 6 million gallons of water will be treated daily once the facility is operational.

**Toho
Water
Authority**



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water
.com**

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