



2021 DRINKING WATER QUALITY REPORT

Published in 2022

*This report is produced for you as a requirement
of the Federal Safe Drinking Water Act.*





TAMPA'S WATER IS:
SAFE, SECURE & ESSENTIAL

The Tampa Water Department is pleased to present your 2021 Water Quality Report. Delivering safe, clean drinking water to over 710,000 people who live and work within our 211-square mile service area is a responsibility that we have always taken seriously.

This report features water quality information collected through 2021. You will find information about where your water comes from and our robust water quality testing process. We also illustrate the steps we take to protect your safety as water moves from

our water treatment facility and pipes into your home or business.

Making sure that you have reliable access to safe, clean and affordable water around the clock is made possible through the hard work and dedication of more than 300 Water Department employees.

We hope that you take this opportunity to learn more about your drinking water. Please reach out to us if you have any questions, concerns or suggestions. Our contact information is listed on the back of this report.

Chuck Weber, P.E.
City of Tampa Water Director



35,000
Water Analyses
Conducted in 2021

8,000
Water Samples
Taken

200+
Contaminants
Tested



78.4
Million Gallons Per Day
Tampa's Average Daily
Drinking Water Demand

710,000+
Service Population



2,200
Miles of Water Mains in
our Distribution System

14,200
Fire hydrants
inspected every year

50,000
Water Valves

WATER SOURCE & TREATMENT

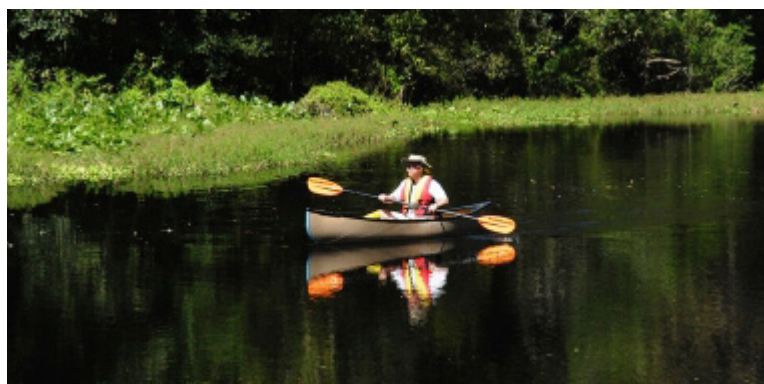
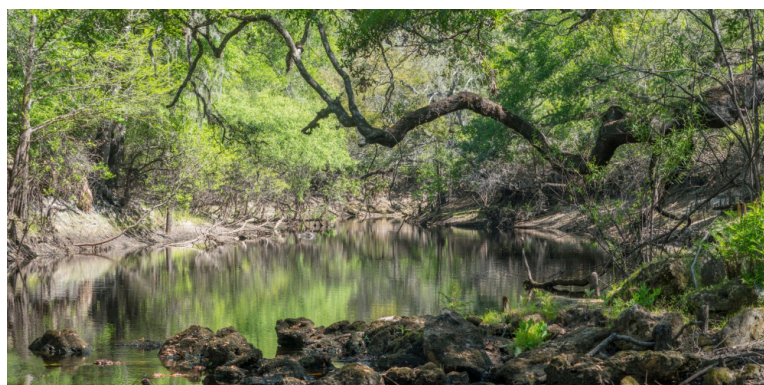
Your water begins in the Florida wetlands.

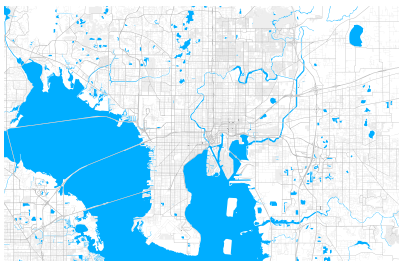


Tampa's water primarily comes from the Hillsborough River. The Hillsborough River, which is 57 miles long, is one of four rivers that emerges from the Green Swamp.

The Green Swamp is a largely undeveloped natural system composed of cypress swamps, hardwood forests, marshes, pine flatwoods and sandhills. Spanning 560,000 acres of Florida backcountry, the Green Swamp includes portions of Polk, Lake, Sumter, Hernando and Pasco counties.

*Photo credit: Southwest Florida
Water Management District*





Tampa Water Department customers rely on the Hillsborough River as their primary source of water.

When the river supply cannot meet community demands during dry periods, we can augment our supply by using up to 1.2 billion gallons of finished water stored in underground aquifers.

When necessary, the City of Tampa will purchase additional drinking water from Tampa Bay Water (TBW). During 2021, no water was purchased from TBW.

PROTECTING WHERE YOUR WATER COMES FROM

Source Water Assessment & Protection Program (SWAPP)

The Tampa Water Department works with the Florida Department of Environmental Protection (FDEP) to conduct periodic source water assessments to determine the susceptibility of local source water to contamination; these assessments are updated every year.

The 2021 assessment identified 15 potential sources of contamination in the vicinity of our system with susceptibility levels ranging from low to high. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at fldep.dep.state.fl.us/swapp, PWS ID #6290327.

Potential Sources of Contamination

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:

- 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.

Contaminants & Regulations

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.

About Your Health

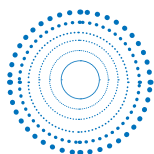
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

MAKING WATER SAFE TO DRINK

A glimpse into how we make Tampa's water safe to drink.

Our Multi-Step Water Treatment Process

- 1 Screens**
 Large debris, such as plants, fish, and trash are removed from the water as it's pumped in from the Hillsborough River. Smaller debris is removed using one of the processes listed below:
- 2 Coagulation and Flocculation**
 Ferric sulfate and sulphuric acid are rapidly blended into the water. During this process, smaller pieces of debris begin to clump together. These soft clumps are known as floc. Polymers are then added to the water, to encourage the floc particles to form larger, heavier floc solids.
- Sedimentation**
 The large, heavy clumps of floc settle to the bottom of sedimentation basins and are removed. The clear water is collected from the top of the sedimentation basins and sent to the next step.
- OR**
- ActiFlo**
 The Water Department also uses a high-speed system, called ActiFlo, that operates alongside our conventional coagulation process. Ferric sulfate, sulphuric acid and polymers are added to the water to encourage small debris to clump together. We then add sand to speed up the sedimentation process.
- 3 Primary Disinfection**
 Clear drinking water is collected at the end of the settling basins and is treated with ozone gas to destroy bacteria, viruses and other microorganisms. This advanced disinfection process produces a higher quality water with better taste and odor. On a seasonal basis, we further disinfect the water with hydrogen peroxide.
- 4 Biofiltration**
 The water is filtered using granular activated carbon to remove any remaining particles.
- 5 Corrosion Control**
 Lime and caustic soda are added to adjust pH and help prevent corrosion in pipes.
- 6 Secondary Disinfection**
 Chlorine is added to the filtered water to ensure it is fully disinfected. Ammonia is then added to create chloramine so that the water remains disinfected as it travels through the pipes.
- 7 Additional Processes**
 We also add fluoride as a dental health measure.

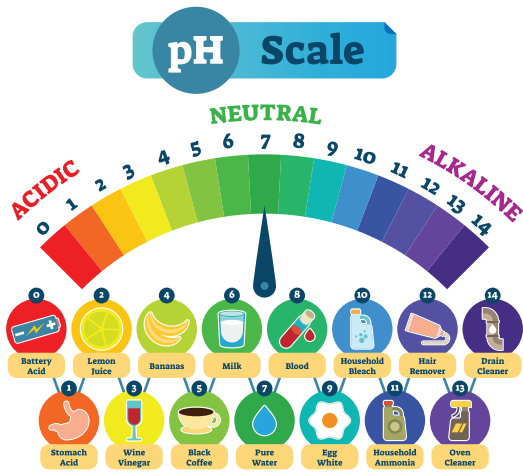


People with special health concerns

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 / Center for Disease Control (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).



What are the pH and hardness levels of Tampa's drinking water?

Ensuring that our water has a neutral pH is one way we help minimize the potential for corrosion in our pipes.

The average pH of our finished water during 2021 was 7.88. The average total hardness of our finished water was 171 mg/L or 10.4 grains/gallon.

More Ways We Keep Your Water Safe

Adding Chlorine + Ammonia (Chloramine)

The Tampa Water Department adds chloramine (a mixture of chlorine and ammonia) just before the water leaves the plant. Chlorine is a powerful disinfectant. Ammonia is added to make the chlorine last longer. It also reduces the bleach-like smell. This final step helps ensure that your drinking water remains free of pathogens as it moves through the water mains.

Monitoring pH Levels

The Tampa Water Department uses caustic soda and lime to adjust the pH/alkalinity levels in our drinking water. This is part of our corrosion control program, which minimizes the risk of metal leaching into the water. Our program adjusts the alkalinity of the water so it has a neutral pH.

BEFORE THE WATER LEAVES THE WATER TREATMENT PLANT

The Tampa Water Department tests for over 200 contaminants, ranging from organisms like bacteria to chemicals like nitrates. We are proud to say that our drinking water is safe to drink and surpasses all federal and state drinking water standards.



GETTING WATER TO YOUR HOME & BUSINESS IS OUR TOP PRIORITY

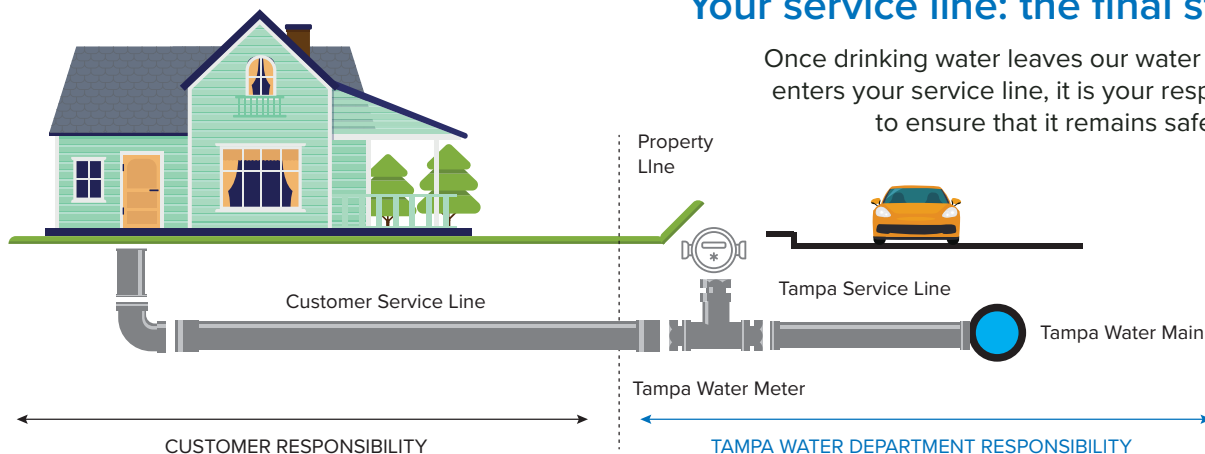
Once the water leaves the water treatment plant, it travels through a complex distribution system that includes water mains, valves, hydrants, pump stations, water towers, elevated and ground storage tanks, and more. We maintain more than 2,200 miles of water mains that deliver safe, clean drinking water to customers throughout the City of Tampa and parts of unincorporated Hillsborough County.



Distribution technicians

Your service line: the final stretch

Once drinking water leaves our water main and enters your service line, it is your responsibility to ensure that it remains safe to drink.



Continuous Testing in the Field

We have a dedicated team of specially trained technicians that collect water samples throughout our service area. Their efforts help ensure the water stays safe as it travels from the plant to you.

We collect over 8,000 samples every year and perform over 35,000 water quality tests. That's the equivalent of over 660 samples and over 2,900 tests every month!

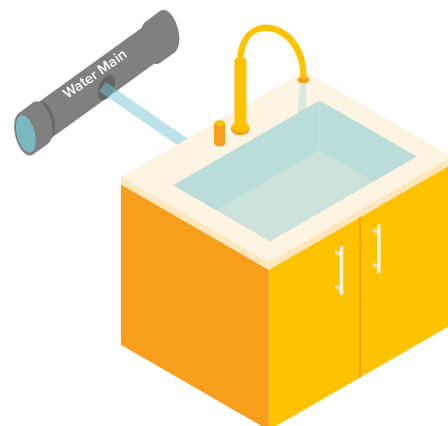


Field quality technicians testing water quality

What do we mean by “flushing your pipes”?

Flushing pushes the water that is sitting in your plumbing out through a faucet and sends it down your drain.

- **When to flush your pipes:** If you haven't run your tap in 6 hours or more (such as first thing in the morning) or the water looks cloudy or smells different.
- **How to flush your pipes:** Select the faucet that is furthest away from where water enters your property then run the cold water tap for 5 to 10 minutes. This will bring in fresh, clean water and flush out the water that has been sitting in your pipes.



UNDERSTANDING OUR TEST RESULTS

Many of the terms and abbreviations contained in this report may not be familiar since they are unique to the water industry. Below is a brief explanation of the terms that appear on the following pages.

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

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 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.

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 Goals

(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.

N/A: Not applicable.

ND: Not detected. Indicates that the substance was not found by laboratory analysis.

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

Parts Per Billion (ppb) or Micrograms Per Liter (ug/L): One part by weight of analyte to 1 billion parts by weight of the water sample.

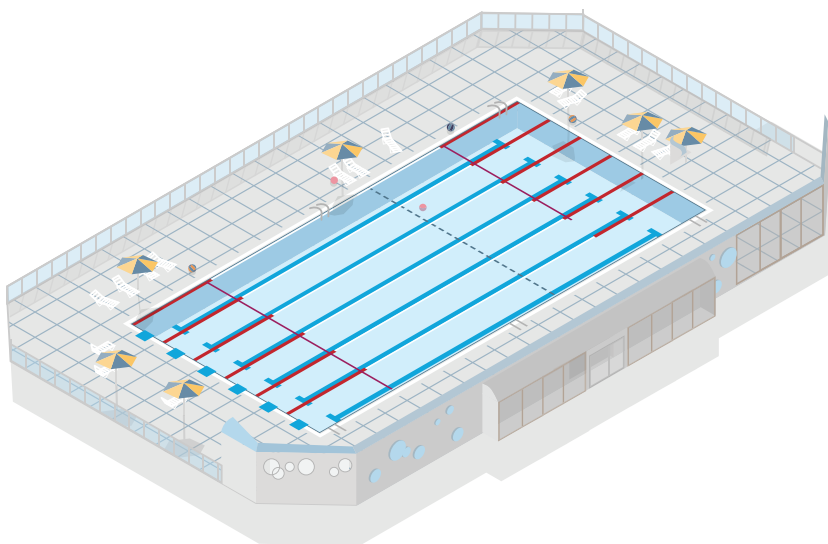
Parts Per Million (ppm) or Milligrams Per Liter (mg/L): One part by weight of analyte to 1 million parts by weight of the water sample.

Trihalomethanes: Compounds formed during chloramination (disinfection) of drinking water. 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 system and may have an increased risk of getting cancer.

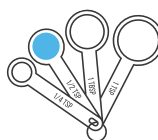
Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

WHAT IS A “PPM”?

Many of our test results are reported as “parts per million” (ppm) or “parts per billion” (ppb). Here’s what that looks like:



ppm (parts per million):
Means 1 part per 1,000,000 parts.
This is the equivalent of **two thirds of a gallon** in an Olympic-sized swimming pool.



ppb (parts per billion):
Means 1 part per 1,000,000,000 parts. This is the equivalent of **half a teaspoon** in an Olympic-sized swimming pool.

Our water mains have no lead.

However, some older buildings may have lead plumbing. Places where you might find lead:



Lead Pipe

Corroded
Steel Pipe

Lead Pipe Treated
with Orthophosphate

Photo Credit: U.S. Environmental Protection Agency

- **Older fixtures and valves:** Lead can be found in older fixtures and valves. It may also be found in old solder where pipes are joined together.
- **Service lines:** This pipe connects a property's plumbing to the water main in the street. Generally speaking, maintaining or replacing a service line is the responsibility of the property owner.

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	Action Level (AL)	Likely Source of Contamination
Copper (ppm)	July – Sept 2020	No	0.255	None	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	July – Sept 2020	No	1.0	None	0	15	Corrosion of household plumbing systems; erosion of natural deposits

Monitoring for lead and copper

Every three years, the Tampa Water Department completes a rigorous round of sampling for lead and copper.

We share the results with the Florida Department of Health as well as the public via the annual Water Quality Report.

The EPA requires that 90% of homes show lead levels below 15 ppb. As you can see from the table above, our results fall well below that threshold.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children.

Sources of Lead

When lead is found in tap water, it can typically be traced to lead that is leaching from plumbing material.

Learn About Your Plumbing

The Tampa Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing.

The Tampa Water Department has a strong, proactive corrosion control program. We continuously monitor our water, making adjustments to pH levels among other indicators to optimize corrosion control.

Reducing Your Lead Exposure

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 epa.gov/safewater/lead.

2021 DATA TABLES

Your drinking water is monitored for many different kinds of substances on a very strict sampling schedule. The water we deliver to you must meet specific health standards.

The data tables below show only those substances that were detected in our water.

Key points to keep in mind:

- Detecting a substance does not mean the water is unsafe to drink. Some contaminants may pose a health risk at certain levels to people with special health concerns. Others are used as indicators for treatment plant performance.
- Certain substances are monitored less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

Turbidity

Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation Y/N	The Highest Single Measurement	The Lowest Monthly Percentage of Samples Meeting Regulatory Limits	MCLG	MCL	Likely Source of Contamination
Turbidity (NTU)	Daily: Jan – Dec 2021	N	0.29	100%	N/A	TT	Soil runoff

The result in the lowest monthly percentage column is the lowest monthly percentage of samples reported in the Monthly Operating Report meeting the required turbidity limits. Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system. High turbidity can hinder the effectiveness of disinfectant.

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
Barium (ppm)	May 2021	No	0.013	0.013	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	May 2021	No	0.63	0.63	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at the optimum level of 0.7 ppm
Nitrate (as Nitrogen) (ppm)	May 2021	No	0.28	0.28	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm) **	May 2021	No	69	69	N/A	160	Salt water intrusion, leaching from soil

Results in the level detected column are the highest detected level at any sampling point.

**The Florida Department of Environmental Protection (FDEP) has set the drinking water standard for sodium at 160 parts per million (ppm) to protect individuals who are susceptible to sodium sensitive hypertension or diseases that cause difficulty in regulation body fluid volume. Sodium is monitored so that individuals who have been placed on sodium (salt) restricted diets may take into account the sodium in their drinking water. Drinking water contributes only a small fraction (less than 10 percent) to the overall sodium intake. If you have been placed on a sodium-restricted diet, please inform your physician that our water contains 69 ppm of sodium.

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 Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Bromate (ppb)	Monthly 2021	No	3.15	ND – 4.95	MCLG = 0	MCL = 10	By-product of drinking water disinfection
Chloramines (ppm)	Daily 2021	No	3.6	0.4 – 5.2	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes

For bromate and chloramines the level detected is the highest running annual average (RAA), computed quarterly, from the 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 1 Disinfectants and Disinfection By-Products

Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	TT Violation Y/N	Lowest Running Annual Average, Computed Quarterly, of Monthly Removal Ratios	Range of Monthly Removal Ratios	MCLG	MCL	Likely Source of Contamination
Total organic carbon (ppm)	Weekly 2021	No	2.34	1.82 – 4.67	N/A	TT	Naturally present in the environment

The monthly total organic carbon (TOC) removal ratio is the ratio between the actual TOC removal and the required TOC removal. The lowest running annual average is the lowest removal ratio computed quarterly of the monthly removal ratios.

Stage 2 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
Haloacetic Acids (five) (HAA5) (ppb)	February 2021 May 2021 August 2021 November 2021	No	21.14	10.30 – 30.07	N/A	60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	February 2021 May 2021 August 2021 November 2021	No	25	10.16 – 37.86	N/A	80	By-product of drinking water disinfection

The results in the level detected for haloacetic acids and total trihalomethanes are based on a locational running annual average. The range of results is lowest to highest at individual sampling sites.



The Tampa Water Department monitors for drinking water contaminants in accordance with federal and state guidelines. Except where indicated otherwise, this report reflects monitoring results for the 2021 calendar year. Data obtained before January 1, 2021, and presented in this report, is from the most recent testing done in accordance with applicable laws, rules, and regulations.

CUSTOMER RESOURCES



WATER QUALITY

- Ask questions about Tampa's water quality: (813) 274-8811, option #2
- Learn more about Tampa's water quality online: tampa.gov/waterquality
- Learn more about general water quality by contacting the Environmental Protection Agency's Safe Water Drinking Hotline: (800) 426-4791, epa.gov/sdwacnn
- Get guidance about a variety of environmental health concerns by contacting the Hillsborough County Health Department: (813) 307-8059, hillsborough.floridahealth.gov



CONSERVATION & REBATES

- Talk with a water conservation or water efficiency expert: (813) 274-8121, option #5
- Explore tips, assistance and rebates to help you save water and money on your next water bill: tampa.gov/savewater



BILLING

- Manage your account: tampa.gov/cotu
- Speak with a customer service representative, Monday - Friday, 8am – 5pm: (813) 274-8811, option #4
- Income-qualifying homeowners may be eligible to waive the base charges on their water and wastewater bills. Learn more: tampa.gov/pipes



EMERGENCIES

- Report an urgent concern, such as a water outage, discolored water or hydrant leaks: (813) 274-8811, option #2
- Sign up to receive emergency alerts: tampa.gov/alert-tampa



STAY INFORMED

We want our customers to be informed about our services, programs and initiatives. Tampa Water Department-related issues are discussed at Tampa City Council meetings.

Learn about upcoming meetings

Get the agenda for upcoming meetings by contacting the City Clerk's office at (813) 274-8397 or visiting tampa.gov/city-clerk.

View a meeting from your TV or mobile device

View City Council meetings live via our local government access cable channel, CCTV, as well as via live streaming.

- Live Stream: tampa.gov/webcast
- Channel 15 on Frontier Communications
- Channel 640 on Charter Spectrum

About This Report

This report contains important information about your water quality. We are pleased to report that Tampa meets or exceeds state and federal requirements. If you have any questions about the information in this report, call the Tampa Water Department at (813) 274-8811 for assistance.

Este es un informe importante sobre la calidad de su agua. Con mucho gusto, le contamos que el agua de Tampa cumple o excede los requisitos estatales y federales. Este informe está disponible en español en tampa.gov/waterquality. Si tienes preguntas sobre la información en este informe, llame al Departamento de Agua de la Ciudad de Tampa a (813) 274-8811 para obtener asistencia.

View this report online
[Tampa.gov/2021waterquality](https://tampa.gov/2021waterquality)

Share this report

Please share this report with all people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place or distributing copies by hand and mail. To receive a printed copy of this report, please call (813) 274-5657.