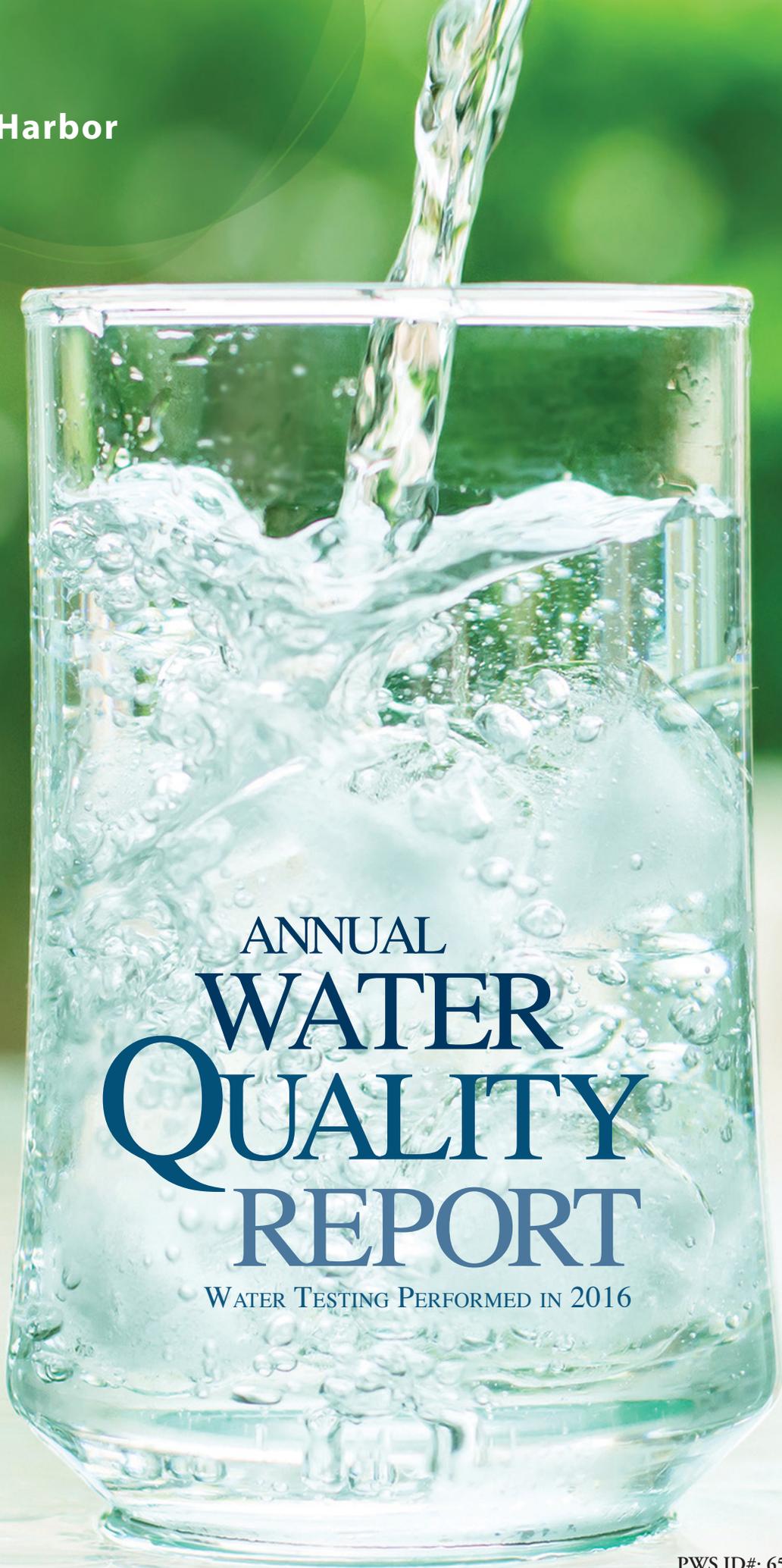


Presented By
City of Safety Harbor



ANNUAL
WATER
QUALITY
REPORT

WATER TESTING PERFORMED IN 2016

We've Come a Long Way

Once again we are proud to present our annual water quality report covering the period between January 1 and December 31, 2016. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at any hour—to deliver the highest quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your family.

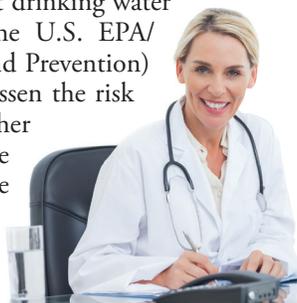
How Is My Water Treated and Purified?

The treatment process consists of a series of steps. First, raw water is drawn from our water source and sent to an aeration tank, which allows for oxidation of the high iron levels that are present in the water. The water then goes to a mixing tank where polyaluminum chloride and soda ash are added. The addition of these substances cause small particles to adhere to one another (called floc), making them heavy enough to settle into a basin from which sediment is removed. Chlorine is then added for disinfection. At this point, the water is filtered through layers of fine coal and silicate sand. As smaller, suspended particles are removed, turbidity disappears and clear water emerges.

Chlorine is added again as a precaution against any bacteria that may still be present. (We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste.) Finally, soda ash (used to adjust the final pH and alkalinity), fluoride (used to prevent tooth decay), and a corrosion inhibitor (used to protect distribution system pipes) are added before the water is pumped to sanitized, underground reservoirs, water towers, and into your home or business.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or at <http://water.epa.gov/drink/hotline>.



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:

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 storm-water 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 storm-water 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 storm-water 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, the U.S. 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 (800) 426-4791.

Community Participation

You are invited to participate in our City Commission Meetings and voice your concerns about your drinking water. Meetings are held on the first and third Mondays of each month, beginning at 7:30 pm at Safety Harbor City Hall, 750 Main Street, Safety Harbor, FL.

Our Water Source

The City of Safety Harbor purchases all of its water from the Pinellas County Water System, which receives potable (drinking) water from sources managed by the regional water supplier, Tampa Bay Water (TBW). This regional water supply is a blend composed of ground water, treated surface water, and desalinated seawater. Eleven regional well fields pumping water from the Floridan Aquifer are the primary sources for the regional ground water supply. The Alafia River, Hillsborough River, C. W. Bill Young Regional Reservoir, and the Tampa Bypass Canal are the primary sources for the regional treated surface-water supply. Hillsborough Bay is the primary source of seawater for the regional desalinated supply. From blends of these water sources as well as the Eldridge-Wilde Well field, potable water is transferred to pumping stations where it undergoes additional minor processes before being pumped to homes and businesses through Safety Harbor's distribution system.

The blended water provided by Tampa Bay Water is treated with a polyphosphate inhibitor to control corrosion. The ground water acquired from the Eldridge-Wilde Well field undergoes water quality enhancements that are composed of five steps. First, the water goes through a hydrogen sulfide removal process. Hydrogen sulfide is a natural element that has a displeasing odor. A polyphosphate inhibitor is then added to control corrosion in the distribution system and home plumbing. Next, the ground water is treated to a standard of 99.99% effectiveness by adding the chlorine disinfectant to ensure against bacteria growth. Then the chloramine disinfectant is added for residual maintenance. Lastly, the pH (acid-alkali) is adjusted and stabilized using sodium hydroxide.

About Our Violation

The total coliform violation happened on 8-10-2016. It was raining that day and we believe we had a false positive total coliform failure due to the rain. Subsequent tests showed no failures. In the future we will not take samples in the rain storm. 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.

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 Safe Drinking Water Hotline or at www.epa.gov/lead.

Fact or Fiction?

A person can live about a month without food, but only about a week without water. *(Fact: Dehydration symptoms generally become noticeable after only 2% of one's normal water volume has been lost.)*

A person should consume a half-gallon of water daily to live healthily. *(Fact: A person should drink at least 64 ounces, or 8 cups, of water each day.)*

Methods for the treatment and filtration of drinking water were developed only recently. *(Fiction: Ancient Egyptians treated water by siphoning water out of the top of huge jars after allowing the muddy water from the Nile River to settle. And, Hippocrates, known as the father of medicine, directed people in Greece to boil and strain water before drinking it.)*

There is the same amount of water on Earth now as there was when the Earth was formed. *(Fact: The water that comes from your faucet could contain molecules that dinosaurs drank!)*

A typical shower with a non-low-flow showerhead uses more water than a bath. *(Fiction: A typical shower uses less water than a bath.)*

About half the water treated by public water systems is used for drinking and cooking. *(Fiction: Actually, the amount used for cooking and drinking is less than 1% of the total water produced!)*

One gallon of gasoline poured into a lake can contaminate approximately 750,000 gallons of water. *(Fact!)*



QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please contact the Safety Harbor Public Works Director at (727) 724-1550.

Test Results

Our water is monitored for many different kinds of contaminants on a very strict sampling schedule. The information below represents only those substances that were detected; our goal is to keep all detects below their respective maximum allowed levels. The State recommends monitoring for certain substances less 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.

Pace Analytical has been monitoring for unregulated contaminants (UCs) as part of a study to help the U.S. Environmental Protection Agency (U.S. EPA) determine the occurrence in drinking water of UCs and whether or not these contaminants need to be regulated. At present, no health standards 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 U.S. EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

PRIMARY REGULATED CONTAMINANTS

Microbiological Contaminants

CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	City of Safety Harbor		Pinellas County Utilities ¹		MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
		DATE OF SAMPLING (MO./YR.)	HIGHEST MONTHLY PERCENTAGE/NUMBER	DATE OF SAMPLING (MO./YR.)	HIGHEST MONTHLY PERCENTAGE/NUMBER			
Total Coliform Bacteria [before April 1, 2016] (% positive samples)	No	NA	NA	1/16–3/16	1.1% ¹	0	Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment

CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	City of Safety Harbor		Pinellas County Utilities		MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
		DATE OF SAMPLING (MO./YR.)	RESULT	DATE OF SAMPLING (MO./YR.)	RESULT			
Total Coliform Bacteria [RTCR–after April 2016] (positive samples)	Yes	8/10/16	Positive	4/16–12/16	Positive ²	NA	TT	Naturally present in the environment

CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATE OF SAMPLING (MO./YR.)	THE HIGHEST SINGLE MEASUREMENT	City of Safety Harbor		Pinellas County Utilities		Tampa Bay Water			MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
				THE LOWEST MONTHLY PERCENTAGE OF SAMPLES MEETING REGULATORY LIMITS	DATE OF SAMPLING (MO./YR.)	THE HIGHEST SINGLE MEASUREMENT	THE LOWEST MONTHLY PERCENTAGE OF SAMPLES MEETING REGULATORY LIMITS	DATE OF SAMPLING (MO./YR.)	THE HIGHEST SINGLE MEASUREMENT	THE LOWEST MONTHLY PERCENTAGE OF SAMPLES MEETING REGULATORY LIMITS			
Turbidity³ (NTU)	No	NA	NA	NA	NA	NA	NA	1/16–12/16	1.0	100	NA	TT	Soil runoff

Radioactive Contaminants

CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	Pinellas County Utilities			Tampa Bay Water			MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
		DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS			
Alpha Emitters (pCi/L)	No	3/11	0.806	ND–0.806	4/16	4.4	0.7–4.4	0	15	Erosion of natural deposits
Radium 226 + 228 [Combined Radium] (pCi/L)	No	NA	NA	NA	4/16	4.1	1.0–4.1	0	5	Erosion of natural deposits
Uranium (ppb)	No	NA	NA	NA	4/16	0.7	NA	0	30	Erosion of natural deposits

Inorganic Contaminants (Pinellas County Utilities)

CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS
Barium (ppm)	No	2/16	0.0151	NA	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium (ppb)	No	2/16	2.3	NA	100	100	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	No	2/16	0.43	NA	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
Nickel (ppb)	No	2/16	1.2	NA	NA	100	Pollution from mining and refining operations; Natural occurrence in soil
Nitrate [as Nitrogen] (ppm)	No	2/16	0.1	NA	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (ppm)	No	2/16	19.6	NA	NA	160	Saltwater intrusion; Leaching from soil

Synthetic Organic Contaminants, Including Pesticides and Herbicides (Tampa Bay Water)										
CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS			
Dalapon (ppb)	No	1/16–4/16	0.74	ND–0.74	200	200	Runoff from herbicide used on rights of way			
Stage 1 Disinfectants and Disinfection By-Products										
		Pinellas County Utilities			Tampa Bay Water					
CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	MCLG OR [MRDLG]	MCL OR [MRDL]	LIKELY SOURCE OF CONTAMINATION
Bromate (ppb)	No	NA	NA	NA	1/16–12/16	2.20 ⁵	0.80–6.49	0	10	By-product of drinking water disinfection
Chloramines (ppm)	No	1/16–12/16	3.8 ⁴	0.6–6.0 ⁴	NA	NA	NA	[4]	[4.0]	Water additive used to control microbes
Chlorine (ppm)	No	1/16–12/16	3.8 ⁴	0.6–6.0 ⁴	NA	NA	NA	[4]	[4.0]	Water additive used to control microbes
		Pinellas County Utilities			Tampa Bay Water					
CONTAMINANT AND UNIT OF MEASUREMENT	ACUTE VIOLATIONS (YES/NO)	DATE OF SAMPLING (MO./YR.)	NON-ACUTE VIOLATIONS (YES/NO)	LEVEL DETECTED	DATE OF SAMPLING (MO./YR.)	NON-ACUTE VIOLATIONS (YES/NO)	LEVEL DETECTED	MRDLG	MRDL (AT THE ENTRANCE TO THE DISTRIBUTION SYSTEM)	LIKELY SOURCE OF CONTAMINATION
Chlorine Dioxide (ppb)	No	NA	NA	NA	4/16	NA	0.70	800	800	Water additive used to control microbes
		Pinellas County Utilities			Tampa Bay Water					
CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATE OF SAMPLING (MO./YR.)	HIGHEST MONTHLY AVERAGE	HIGHEST AVERAGE (THREE SAMPLE SET) FOLLOWING A DAILY MCL VIOLATION AT THE ENTRANCE TO THE DISTRIBUTION SYSTEM	DATE OF SAMPLING (MO./YR.)	HIGHEST MONTHLY AVERAGE (THREE SAMPLE SET COLLECTED IN THE DISTRIBUTION SYSTEM)	HIGHEST AVERAGE (THREE SAMPLE SET) FOLLOWING A DAILY MCL VIOLATION AT THE ENTRANCE TO THE DISTRIBUTION SYSTEM	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Chlorite (ppm)	No	NA	NA	NA	1/16–12/16	0.0082	NA	0.8	1.0	By-product of drinking water disinfection
		Pinellas County Utilities			Tampa Bay Water					
CONTAMINANT AND UNIT OF MEASUREMENT	TT VIOLATION (YES/NO)	DATE OF SAMPLING (MO/YR)	LOWEST ANNUAL AVERAGE MONTHLY REMOVAL RATIO	RANGE OF MONTHLY REMOVAL RATIOS	DATE OF SAMPLING (MO/YR)	LOWEST ANNUAL AVERAGE MONTHLY REMOVAL RATIO	RANGE OF MONTHLY REMOVAL RATIOS	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Total Organic Carbon (ppm)	No	NA	NA	NA	1/16/- 12/16	3.6 ⁶	1.72–3.8	NA	TT	Naturally present in the environment
Stage 2 Disinfectants and Disinfection By-Products										
		City of Safety Harbor			Pinellas County Utilities					
CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Haloacetic Acids (five) [HAA5] (ppb)	No	2/16, 5/16, 8/16, 11/16	21.2	16.4–27.8	2/16, 5/16, 8/16, 11/16	27.70	18.00–40.90	NA	60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	No	2/16, 5/16, 8/16, 11/16	42.9	32.5–52.2	2/16, 5/16, 8/16, 11/16	42.17	24.30–46.60	NA	80	By-product of drinking water disinfection
Lead and Copper: Tap Water Samples Collected from Sites throughout the Community										
		City of Safety Harbor			Pinellas County Utilities					
CONTAMINANT AND UNIT OF MEASUREMENT	AL EXCEEDANCE (YES/NO)	DATE OF SAMPLING (MO./YR.)	90TH PERCENTILE RESULT	NO. OF SAMPLING SITES EXCEEDING THE AL	DATE OF SAMPLING (MO./YR.)	90TH PERCENTILE RESULT	NO. OF SAMPLING SITES EXCEEDING THE AL	MCLG	AL (ACTION LEVEL)	LIKELY SOURCE OF CONTAMINATION
Copper [tap water] (ppm)	No	6/14, 7/14, 8/14	0.41	0	6/14–7/14	0.41	0	1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead [tap water] (ppb)	No	6/14, 7/14, 8/14	0.54	0	6/14–7/14	0.8	0	0	15	Corrosion of household plumbing systems; Erosion of natural deposits

¹ Pinellas County Utilities collects at least 180 water samples a month for Total Coliform Bacteria Analysis. NOTE: Revised Total Coliform Rule went into effect on April 1, 2016.

² Unsatisfactory sample results due to a sample collection error during 11/2016.

³ The result in the lowest monthly percentage column is the lowest monthly percentage of samples reported in the Monthly Operating report that meets the required turbidity limits.

⁴ The level detected is the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. The range of results is the highest and lowest result of all the individual samples collected during the past year.

⁵ For bromate, the level detected is the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected.

⁶ The monthly TOC removal ratio is the ratio between the actual TOC removal and the TOC rule removal requirements.

Definitions

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

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.

MCL (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 (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 disinfectants to control microbial contaminants.

NA: Not applicable.

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

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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