

2015 Annual Drinking Water Quality Report
Pasco County Utilities - Pasco County Regional Water System
PWS ID No. 651-1361

We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality 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. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

The Pasco County Regional Water System's primary water source is groundwater from a number of deep wells located throughout Pasco County. These wells draw from the Floridian Aquifer. Eleven different well fields pump water from the Floridian Aquifer, which serves as the primary source for the regional groundwater 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. Tampa Bay Water (TBW), the regional water supplier of which Pasco County is a member, provides an estimated 95 percent of our drinking water. Water quality testing results for all of these sources have been included in this report.

The Pasco County Regional Water System uses chloramines to disinfect the water supply. This process is called chloramination. Chloramination essentially involves adding a small amount of ammonia to the water (less than one part per million) along with chlorine during the treatment process, thereby forming chloramines, or combined chlorine. For more information on chloramines, please contact Pasco County Utilities at (727) 847-8145, or visit our website at www.pascocountyutilities.com. For additional information or questions concerning Tampa Bay Water's water quality, call (813) 929-4521 or visit their website at www.tampabaywater.org.

Both Pasco County Utilities and Tampa Bay Water (TBW) 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, 2015. As authorized and approved by the Environmental Protection Agency, 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. Since certain parameters are only required to be sampled once every three years, some of our data (e.g., for organic contaminants), though representative, is more than one year old.

In the table below you will find terms and abbreviations you might not be familiar with. To help you better understand these terms we have provided the following definitions:

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 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 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 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.

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.

Parts per million (ppm) or milligrams per liter (mg/l): One part by weight of analyte to one million parts by weight of the water sample.

Parts per billion (ppb) or micrograms per liter ($\mu\text{g/l}$): One part by weight of analyte to one billion parts by weight of the water sample.

Picocurie per liter (pCi/l): Measure of the radioactivity in water.

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

N/A: Not applicable.

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

Turbidity: A measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. High turbidity can hinder the effectiveness of disinfectants.

TEST RESULTS TABLES

Note: The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of our data, though representative, may be more than one year old.

Water Quality Testing Results: 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)	2,4/2014	N	6.2	ND – 6.2	0	15	Erosion of natural deposits
Radium 226 + 228 or combined radium (pCi/L)	02/2014	N	2.4	1.2 – 2.4	0	5	Erosion of natural deposits

Water Quality Testing Results: 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
Arsenic (ppb)	02/2014	N	1.9	ND – 1.9	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	02/2014	N	0.015	0.0054 - 0.015	2.0	2.0	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits
Beryllium (ppb)	02/2014	N	0.14	ND – 0.14	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	02/2014	N	0.87	ND – 0.87	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium (ppb)	02/2014	N	7.1	3.6 – 7.1	N/A	100	Discharge from steel and pulp mills; erosion of natural deposits
Cyanide (ppb)	02/2014	N	4.0	ND – 4.0	N/A	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride (ppm)	02/2014	N	0.42	0.06 - 0.42	4	4	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
Lead [point of entry] (ppb)	02/2014	N	0.49	ND – 0.49	0	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Nickel (ppb)	02/2014	N	2.8	1.7 - 2.8	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil
Nitrate (ppm) (as Nitrogen)	02/2015	N	0.9	0.04 – 0.9	10	10	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits

Water Quality Testing Results: 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
Nitrite (ppm)	02/2015	N	0.14	ND – 0.14	1	1	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits
Selenium (ppb)	02/2014	N	2.6	ND – 2.6	N/A	50	Discharge from petroleum and metal refineries, erosion of natural deposits, discharge from mines
Sodium (ppm)	02/2014	N	26	7.8 - 26	N/A	160	Salt water intrusion; leaching from soil

Water Quality Testing Results: Disinfectants & Disinfection By-Products (D/DBP)

For the following disinfectant residuals, 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 range of results (lowest to highest) of all the individual samples collected during the past year.

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MRDLG	MRDL	Likely Source of Contamination
Chloramines (ppm)	Apr.-Dec. 2014; Jan – Dec. 2015	N	3.27	0.9 – 4.5	4	4	Water additive used to control microbes

For the following disinfectant residuals and disinfection by-products monitored under Stage 2 D/DBP regulations, the level detected is the highest Locational Running Annual Average (LRAA), computed quarterly, for any single sampling point. Range of Results is the range of individual sample results (lowest to highest) for all monitoring locations.

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
TTHM (ppb) [Total Trihalomethanes]	4,9,11/2014 2,4,7,11/2015	N	19.65	3 – 24.5	N/A	80	By-product of drinking water disinfection
Haloacetic Acids (ppb) (five) (HAA5)	4,9,11/2014 2,4,7,11/2015	N	10.94	ND – 19.24	N/A	60	By-product of drinking water disinfection

Water Quality Testing Results: Lead and Copper (Tap Water)

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	AL Violation Y/N	90 th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level) 90 th Percentile	Likely Source of Contamination
Copper (tap water) (ppm) Pasco	7,8/2014	N	1.01	1	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	7,8/2014	N	1.9	1	0	15	Corrosion of household plumbing systems; erosion of natural deposits

In 2015, the Department of Environmental Protection performed a Source Water Assessment on our system and a search of the data sources indicated no potential sources of contamination near our wells. In 2015, the Department of Environmental Protection also performed Source Water Assessments for Tampa Bay Water Facilities. A search of the data sources indicated no potential sources of contamination near the wells operated by Tampa Bay Water. The Tampa Bay Water surface water system is considered to be at high risk because of the many potential sources of contamination present in the assessment area. All assessment results are available on the FDEP Source Water Assessment and Protection Program website at https://fldep.dep.state.fl.us/swapp/DisplayPWS.asp?pws_id=6511361&odate=01-OCT-15.

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. Pasco County Utilities 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 <http://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.

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. Food and Drug Administration 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 EPA's Safe Drinking Water Hotline (800) 426-4791.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink two 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.

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/Centers for Disease Control 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.

Pasco County Utilities would like you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please call any of the numbers listed, or the Pasco County Utilities Customer Information & Services at (727) 847-8131 x6813. We encourage public participation in our community's decision affecting drinking water.

Regular Pasco County Board of County Commissioners meetings are held every other week at 10:00 a.m. The meetings are held at one of the following locations:

West Pasco Government Center
Board Room
7530 Little Road
New Port Richey, FL34654

Historic Pasco County Courthouse
Board Room
37918 Meridian Avenue
Dade City, FL33525

Please call the Zoning/Code Compliance Division at (727) 847-8110 for date, time, and location of the meetings or visit www.pascocountyfl.net for more information.

Tampa Bay Water's Board of Directors meetings occur on the third Monday of every other month, at 9:30 a.m. at 2575 Enterprise Road, Clearwater, FL 33763-1102. The public is welcome. For more information about Tampa Bay Water, visit www.tampabaywater.org.

For more information or questions concerning Tampa Bay Water's water quality, call (813) 929-4521 or visit <http://tampabaywater.org/drinking-water-quality.aspx>.

TAMPA BAY WATER – DESAL WTP FACILITY (DESALWTPEFF)

Water Quality Testing Results: Radioactive Contaminants

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation (Y/N)	Sample Date	Major Sources
Radium 226 + 228 (pCi/L)	5	0	1.0	N/A	N	5/2015	Erosion of natural deposits

Water Quality Testing Results: Inorganic Contaminants

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Barium (ppm)	2	2	0.002	N/A	N	5/2015	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Sodium (ppm)	160	N/A	43.0	N/A	N	5/2015	Salt water intrusion; leaching from soil

Water Quality Testing Results: Disinfectant/Disinfection By-Products (D/DBP)

For the following contaminants monitored under Stage 2 D/DBP regulations, Range of Results is the range of results (lowest to highest) at the individual sampling sites.

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
HAA5s (ppb)	60	N/A	N/A	5.67 - 29	N	1,4,7,10/2015	By-product of drinking water chlorination
TTHMs (ppb)	80	N/A	N/A	16.37 - 41.97	N	1,4,7,10/2015	By-product of drinking water chlorination

Compound and Unit of Measurement	MCL	MCLG	Highest Monthly Average	Highest Average	MCL Violation	Sample Date	Major Sources
Chlorite (ppm)	1	0.8	0.00878	N/A	N	1-12/2015	By-product of drinking water chlorination

Compound and Unit of Measurement	MRDLG	MRDL	Level Detected	Non-Acute Violation	Acute Violation	Sample Date	Major Sources
Chlorine Dioxide (ppb)	800	800	340	N	N	1-4,5/2015	Water Additive used to control microbes

Water Quality Testing Results: Turbidity

Compound and Unit of Measurement	MCL	MCLG	Highest Single Measure	Lowest Monthly %	MCL Violation	Sample Date	Major Sources
Turbidity (NTU)	TT	N/A	0.38	100	N	1-4,5/ 2015	Soil Runoff

Water Quality Testing Results: Organic Compounds

Compound and Unit of Measurement	MCL	MCLG	Range of Monthly Removal Ratios	Lowest Running Annual Avg. Computed Quarterly Monthly Removal Ratios	MCL Violation	Sample Date	Major Sources
Total Organic Carbon (ppm)	TT	N/A	4.0 – 5.69	4.0	N	1, 5 / 2015	Naturally present in the environment

TAMPA BAY WATER – BUD5 WTP FACILITY (BUD5WTPEFF)

Water Quality Testing Results: Radioactive Contaminants

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Alpha emitters (pCi/L)	15	0	7.8	N/A	N	4/2015	Erosion of natural deposits
Radium 226 + 228 (pCi/L)	5	0	2.1	N/A	N	4/2015	Erosion of natural deposits
Uranium (pCi/L)	30	0	1.2	N/A	N	4/2015	Erosion of natural deposits

Water Quality Testing Results: Inorganic Contaminants

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Barium (ppm)	2	2	0.015	N/A	N	4/2015	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	4	4	0.17	N/A	N	4/2015	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)	100	N/A	1	N/A	N	4/2015	Pollution from mining and refining operations. Natural occurrence in soil
Nitrate (ppm)	10	10	0.96	0.93 - 0.96	N	1,4,7,10/2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (ppm)	1	1	0.03	ND – 0.03	N	1,4,7,10/2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	160	N/A	13.4	N/A	N	4/2015	Salt water intrusion; leaching from soil

Water Quality Testing Results: Disinfectant/Disinfection By-Products (D/DBP)

For the following contaminants monitored under Stage 2 D/DBP regulations, Range of Results is the range of results (lowest to highest) at the individual sampling sites.

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
HAA5s (ppb)	60	N/A	N/A	5.67 – 29	N	1,4,7,10 /2015	By-product of drinking water chlorination
TTHMs (ppb)	80	N/A	N/A	16.37 – 41.97	N	1,4,7,10 /2015	By-product of drinking water chlorination

TAMPA BAY WATER – BUD7 WTP FACILITY (BUD7WTPEFF)

Water Quality Testing Results: Inorganic Contaminants

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Barium (ppm)	2	2	0.013	N/A	N	4/2015	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	4	4	0.14	N/A	N	4/2015	Erosion of natural deposits, discharge from fertilizer and aluminum factories; water additive which promotes strong teeth when at optimum level of 0.7 ppm.
Nickel (ppb)	100	N/A	1	N/A	N	4/2015	Pollution from mining and refining operations. Natural occurrence in soil
Nitrate (ppm)	10	10	3.07	2.85 – 3.07	N	1,4,7,10 / 2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (ppm)	1	1	0.03	ND-0.03	N	1,4,7,10 / 2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	160	N/A	12.9	N/A	N	4/2015	Salt water intrusion; leaching from soil

Water Quality Testing Results: Radioactive Contaminants

Contaminant and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Alpha emitters (pCi/L)	15	0	4.2	N/A	N	4/2015	Erosion of natural deposits
Radium 226 + 228 (pCi/L)	5	0	1.3	N/A	N	4/2015	Erosion of natural deposits
Uranium (pCi/L)	30	0	0.4	N/A	N	4/2015	Erosion of natural deposits

Water Quality Testing Results: Disinfectant/Disinfection By-Products (D/DBP)

For the following contaminants monitored under Stage 2 D/DBP regulations, Range of Results is the range of results (lowest to highest) at the individual sampling sites.

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
HAA5s (ppb)	60	N/A	N/A	5.67 – 29	N	1,4,7,10 /2015	By-product of drinking water chlorination
TTHMs (ppb)	80	N/A	N/A	16.37 – 41.97	N	1,4,7,10 /2015	By-product of drinking water chlorination

TAMPA BAY WATER – REG SURFACE WATER WTP FACILITY (RSWTPEFF)

Water Quality Testing Results: Radioactive Contaminants

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Radium 226 + 228 (pCi/L)	5	0	1.9	N/A	N	4/2015	Erosion of natural deposits

Water Quality Testing Results: Turbidity

Compound and Unit of Measurement	MCL	MCLG	Highest Single Measure	Lowest Monthly %	MCL Violation	Sample Date	Major Sources
Turbidity (NTU)	TT	N/A	0.193	100	N	1 - 12/2015	Soil runoff

Water Quality Testing Results: Disinfectant/Disinfection By-Products (D/DBP)

For the following contaminants monitored under Stage 2 D/DBP regulations, Range of Results is the range of results (lowest to highest) at the individual sampling sites.

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Bromate (ppb)	10	0	1.72	ND – 6.85	N	1 – 12 / 2015	By-product of drinking water chlorination
HAA5s (ppb)	60	N/A	N/A	5.67 – 29	N	1,4,7,10/2015	By-product of drinking water chlorination
TTHMs (ppb)	80	N/A	N/A	16.37 – 41.97	N	1,4,7,10/2015	By-product of drinking water chlorination

Water Quality Testing Results: Inorganic Contaminants

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Barium (ppm)	2	2	0.019	N/A	N	4/2015	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	4	4	0.33	N/A	N	4/2015	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)	100	N/A	5	N/A	N	4/2015	Pollution from mining and refining operations. Natural occurrence in soil
Nitrate (ppm)	10	10	0.46	0.24 - 0.46	N	1,4,8,10/2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	160	N/A	26.4	N/A	N	4/2015	Salt water intrusion; leaching from soil

Water Quality Testing Results: Organic Compounds

Compound and Unit of Measurement	MCL	MCLG	Range of Monthly Removal Ratios	Lowest Running Annual Avg. Computed Quarterly Monthly Removal Ratios	MCL Violation	Sample Date	Major Sources
Total Organic Carbon (ppm)	TT	N/A	1.71 – 2.98	2.03	N	1 – 12 / 2015	Naturally present in the environment

TAMPA BAY WATER – MORRISBRIDGE WTP FACILITY (MBWTPEFF)

Water Quality Testing Results: Radioactive Contaminants

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Alpha emitters (pCi/L)	15	0	2.6	N/A	N	4/2015	Erosion of natural deposits
Radium 226 + 228 (pCi/L)	5	0	2.8	N/A	N	4/2015	Erosion of natural deposits

Water Quality Testing Results: Inorganic Contaminants

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Barium (ppm)	2	2	0.018	N/A	N	4/2015	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	4	4	0.11	N/A	N	4/2015	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 (ppm)	10	10	0.03	ND – 0.03	N	1,4,7,10/2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (ppm)	1	1	0.03	ND – 0.03	N	1,4,7,10/2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	160	N/A	10.3	N/A	N	4/2015	Salt water intrusion; leaching from soil

Water Quality Testing Results: Organic Contaminants (Including pesticides and herbicides)

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Dalapon (ppb)	200	200	1.2	0.78 – 1.2	N	4,7,10/2015	Runoff from herbicide used on rights of way

Water Quality Testing Results: Disinfectant/Disinfection By-Products (D/DBP)

For the following contaminants monitored under Stage 2 D/DBP regulations, Range of Results is the range of results (lowest to highest) at the individual sampling sites.

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
HAA5s (ppb)	60	N/A	N/A	5.67 – 29	N	1,4,7,10/2015	By-product of drinking water chlorination
TTHMs (ppb)	80	N/A	N/A	16.37 – 41.97	N	1,4,7,10/2015	By-product of drinking water chlorination

Water Quality Testing Results: Microbiological Contaminants

Contaminant and Unit of Measurement	MCL	MCLG	MCL Violation (Y/N)	Highest Monthly No. of Positive Samples	Sample Date	Major Sources
Total Coliform Bacteria	*	0	N	1	1-12/2015	Naturally present in the environment

*For systems collecting fewer than 40 samples per month, MCL = presence of coliform bacteria in one or more samples collected during a month. For systems that collect ≥40 samples /month, MCL= presence of coliform bacteria in 5% of monthly samples.

TAMPA BAY WATER - LAKEBRIDGE TO REGIONAL FACILITY (LBWTPREG)

Water Quality Testing Results: Inorganic Contaminants

Contaminant and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Barium (ppm)	2	2	0.015	N/A	N	4/2015	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	4	4	0.12	N/A	N	4/2015	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 (ppm)	10	10	0.03	ND - 0.03	N	1,4,7,10/2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	160	N/A	7.72	N/A	N	4/2015	Salt water intrusion; leaching from soil

Water Quality Testing Results: Radioactive Contaminants

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Alpha emitters (pCi/L)	15	0	1.7	N/A	N	4/2015	Erosion of natural deposits
Radium 226 + 228 (pCi/L)	5	0	1.3	N/A	N	4/2015	Erosion of natural deposits

Water Quality Testing Results: Disinfectant/Disinfection By-Products (D/DBP)

For the following contaminants monitored under Stage 2 D/DBP regulations, Range of Results is the range of results (lowest to highest) at the individual sampling sites.

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
HAA5s (ppb)	60	N/A	N/A	5.67 – 29	N	1,4,7,10/2015	By-product of drinking water chlorination
TTHMs (ppb)	80	N/A	N/A	16.37 – 41.97	N	1,4,7,10/2015	By-product of drinking water chlorination

TAMPA BAY WATER - CYPRESS CREEK FACILITY WTP (CCWTPEFF)

Water Quality Testing Results: Radioactive Contaminants

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Radium 226 + 228 (pCi/L)	5	0	2.1	N/A	N	4/2015	Erosion of natural deposits

Water Quality Testing Results: Disinfectant/Disinfection By-Products (D/DBP)

For the following contaminants monitored under Stage 2 D/DBP regulations, Range of Results is the range of results (lowest to highest) at the individual sampling sites.

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
HAA5s (ppb)	60	N/A	N/A	5.67 – 29	N	1,4,7,10/2015	By-product of drinking water chlorination
TTHMs (ppb)	80	N/A	N/A	16.37 – 41.97	N	1,4,7,10/2015	By-product of drinking water chlorination

Water Quality Testing Results: Inorganic Contaminants

Contaminant and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Barium (ppm)	2	2	0.018	N/A	N	4/2015	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride (ppm)	4	4	0.1	N/A	N	4/2015	Erosion of natural deposits, discharge from fertilizer and aluminum factories; water additive which promotes strong teeth when at optimum level of 0.7 ppm.
Nitrate (ppm)	10	10	0.05	ND – 0.05	N	1,4,7,10/2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Sodium (ppm)	160	N/A	16	N/A	N	4/2015	Salt water intrusion; leaching from soil

TAMPA BAY WATER – MAYTUM WTP FACILITY (MAYTUMEFF)

Water Quality Testing Results: Radioactive Contaminants

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Radium 226 + 228 (pCi/L)	5	0	0.6	N/A	N	4/2015	Erosion of natural deposits

Water Quality Testing Results: Inorganic Contaminants

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Barium (ppm)	2	2	0.022	N/A	N	4/2015	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	4	4	0.58	N/A	N	4/2015	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.
Lead [point of entry] (ppb)	N/A	15	3	ND - 3	N	1,4,7,10/2015	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Nitrate (ppm)	10	10	0.09	0.03 – 0.09	N	1,4,7,10/2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (ppm)	1	1	0.04	ND – 0.04	N	1,4,7,10/2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	160	N/A	10.9	N/A	N	4/2015	Salt water intrusion; leaching from soil

Water Quality Testing Results: Disinfectant/Disinfection By-Products (D/DBP)

For the following contaminants monitored under Stage 2 D/DBP regulations, Range of Results is the range of results (lowest to highest) at the individual sampling sites.

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
HAA5s (ppb)	60	N/A	N/A	5.67 – 29	N	1,4,7,10/2015	By-product of drinking water chlorination
TTHMs (ppb)	80	N/A	N/A	16.37 – 41.97	N	1,4,7,10/2015	By-product of drinking water chlorination

TAMPA BAY WATER – SOUTH PASCO FACILITY (SPWTPEFF)

Water Quality Testing Results: Radioactive Contaminants

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Alpha emitters (pCi/L)	15	0	3.0	N/A	N	4/2015	Erosion of natural deposits
Radium 226 + 228 (pCi/L)	5	0	2.7	N/A	N	4/2015	Erosion of natural deposits

Water Quality Testing Results: Inorganic Contaminants

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
Barium (ppm)	2	2	0.021	N/A	N	4/2015	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride (ppm)	4	4	0.07	N/A	N	4/2015	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 (ppm)	10	10	0.05	0.02 – 0.05	N	1,4,7,10/2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Nitrite (ppm)	1	1	0.02	ND – 0.02	N	1,4,7,10/2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Sodium (ppm)	160	N/A	13.6	N/A	N	4/2015	Salt water intrusion; leaching from soil.

Water Quality Testing Results: Disinfectant/Disinfection By-Products (D/DBP)

For the following contaminants monitored under Stage 2 D/DBP regulations, Range of Results is the range of results (lowest to highest) at the individual sampling sites.

Compound and Unit of Measurement	MCL	MCLG	Level Detected	Range	MCL Violation	Sample Date	Major Sources
HAA5s (ppb)	60	N/A	N/A	5.67 – 29	N	1,4,7,10/2015	By-product of drinking water chlorination
TTHMs (ppb)	80	N/A	N/A	16.37 – 41.97	N	1,4,7,10/2015	By-product of drinking water chlorination

Supplement to the 2015 Annual Drinking Water Quality Report: Unregulated Contaminants Monitoring Results

Pasco County Utilities – Pasco County Regional Water System PWS ID No. 651-1361

Pasco County Utilities 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.

For a full list of contaminants included in the third cycle of the Unregulated Contaminants Monitoring Rule (UCMR3), please visit:

https://www.epa.gov/sites/production/files/2015-10/documents/ucmr3_factsheet_general.pdf

Q: “Why am I receiving this information?”

Across the country, public utilities are required to participate in the Unregulated Contaminants Monitoring process to help the EPA assess and measure contaminants that:

- a) are not currently covered under national primary drinking water regulations,
- b) are known or anticipated to occur in public water systems, and
- c) that may merit future regulation under the Safe Drinking Water Act.

The data from these additional water samples helps the EPA to make informed regulatory decisions.

The following EPA resources provide additional in-depth background information on the UCMR3 Program:

https://www.epa.gov/sites/production/files/2015-10/documents/ucmr3_factsheet_general.pdf

<https://www.epa.gov/dwucmr/third-unregulated-contaminant-monitoring-rule>

Summary of testing and results:

During the monitoring period between January 2013 and December 2015, seven hundred Pasco County Utilities Regional Water System samples were analyzed for the twenty-eight unregulated contaminants included under the UCMR3. Twenty-one contaminants were undetected or below the minimum reporting level (MRL) for all analyses. The following seven contaminants were detected above the MRL in at least one sample collected during the monitoring cycle:

Contaminant / CASRN ¹	MRL ² (µg/L)	Use or Environmental Source ³
Synthetic Organic Compound: EPA Method 522		
1,4-dioxane 123-91-1	0.07	Cyclic aliphatic ether; used as a solvent or solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos
Metals: EPA Method 200.8; SM 3125; ASTM D5763-10⁴		
vanadium 7440-62-2	0.2	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst
molybdenum 7439-98-7	1	Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical reagent
strontium 7440-24-6	0.3	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
chromium⁵ CASRN n/a	0.2	See chromium-6 for use or source information; though the amount measured when analyzing for "total chromium" is the sum of chromium in all of its valence states, the MCL for EPA's current total chromium regulation was determined based upon the health effects of chromium-6
Chromium-6: EPA Method 218.7		
chromium-6⁶ 18540-29-9	0.03	Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation
Oxyhalide Anion: EPA Method 300.1; SM 4110D; ASTM D658-08		
chlorate 14866-68-3	20	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide

1. CASRN - Chemical Abstracts Service Registry Number

2. MRL - Minimum Reporting Level

3. "Use or Environmental Source" further documented in UCMR 3 Contaminants – Information Compendium. EPA 815-B-11-001. January 2012

4. SM – Standard Methods; ASTM – ASTM International

5. Monitoring for total chromium, in conjunction with UCMR 3 Assessment Monitoring, is required under the authority provided in Section 1445(a)(1)(A) of SDWA

6. Chromium-6 will be measured as soluble chromate ion (CASRN 13907-45-4)

For detected unregulated contaminants for which monitoring is required, the following table contains the average level detected, and range or results at which the contaminant was detected. 141.153(d)(7)

Contaminant Name	MRL (ppb)	Average Level Detected (ppb)	Range of Results (ppb)	Sample Dates	Major Sources
1,4-dioxane	0.07	0.0039	ND - 0.0773	Feb., Aug., Sept., 2013	Used as a solvent or solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics, and shampoos
Chlorate	20	320.67	87.014 - 1657.884	Feb., Aug., Sept., 2013	Agricultural defoliant or desiccant; disinfection byproduct; used in production of chlorine dioxide
Chromium	0.2	0.0622	ND - 0.807	Feb., Aug., Sept., 2013	Naturally occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation. Monitoring for total chromium is currently required under the SWDA, however, the MCL for EPA's current total chromium regulation was determined based upon the health effects of chromium-6.
Chromium-6	0.03	0.1076	ND - 0.668	Feb., May, Aug., Sept., 2013	Naturally occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation.
Molybdenum	1	1.1261	ND - 18.286	Feb., Aug., Sept., 2013	Naturally occurring element found in ores and present in plants, animals, and bacteria; commonly used form, molybdenum trioxide, is used as a chemical reagent
Strontium	0.3	306.375	74.716 - 549.202	Feb., Aug., Sept., 2013	Naturally occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
Vanadium	0.2	0.7431	ND - 7.0733	Feb., Aug., Sept., 2013	Naturally occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst

Note: 'Minimum Reporting Level' is based upon laboratory detection limits and is not a health-based indicator.

EPA Unregulated Contaminants Monitoring:

What does this information mean to me?

Contaminant monitoring is part of a larger process that EPA, states, tribes, water systems, and other partners use to protect drinking water. Health information is necessary to know whether these contaminants pose a health risk, but it is often incomplete for unregulated contaminants. Some contaminants may be harmful at low levels; others may be harmful only at much higher levels. UCMR examines what is in the drinking water, but additional health information is needed to know whether these contaminants pose a health risk.

What are the environmental and public health benefits?

UCMR 3 benefits the environment and public health as follows: EPA and other interested parties will have scientifically valid data on the occurrence of targeted contaminants in drinking water; EPA can assess the number of people potentially being exposed; and EPA can provide an estimate of the levels of that exposure. This data set is one of the primary sources of occurrence and exposure information the agency uses to develop regulatory decisions for contaminants of concern.

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.

The following EPA resources provide additional in-depth background information on the UCMR3 Program:

https://www.epa.gov/sites/production/files/2015-10/documents/ucmr3_factsheet_general.pdf

<https://www.epa.gov/dwucmr/third-unregulated-contaminant-monitoring-rule>

If you have questions about any of the information contained in this CCR, please contact Pasco County Utilities at (727) 847-8131 x 6813.