



Consumer Confidence Report



Pinellas County Utilities 2011 Water Quality Analysis

Delivering Excellence

Pinellas County delivers tap water that is a clean, quality product. Pinellas County Utilities proudly reports that the water provided to customers meets or exceeds all federal and state standards for safe drinking water. All the information contained in this report has been collected and reported in accordance with the rules and regulations of the Florida Department of Environmental Protection (FDEP) and the United States Environmental Protection Agency (USEPA). Each day, county employees work around-the-clock to ensure that the water provided meets or exceeds these standards and expectations for safety, reliability and quality; **our water system had no violations**. We hope that you will take a few minutes to review this important information.

Pinellas County Utilities and Tampa Bay Water 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, 2011**. Data obtained before January 1, 2011, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations. As authorized and approved by the USEPA, 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. The USEPA requires monitoring of over 80 drinking water contaminants. Those contaminants listed in the accompanying tables are the only contaminants detected in your drinking water.

If you would like to request a copy of the Tampa Bay Water 2011 CCR, please contact them at **727-796-2355**.

What Does It All Mean?

The following text is written verbatim in accordance with the Florida Department of Environmental Protection CCR Template instructions, December 21, 2011.

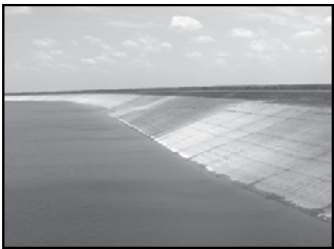
The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick 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 stormwater



primary sources 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. From blends of these water sources as well as the Eldridge-Wilde Well field, potable



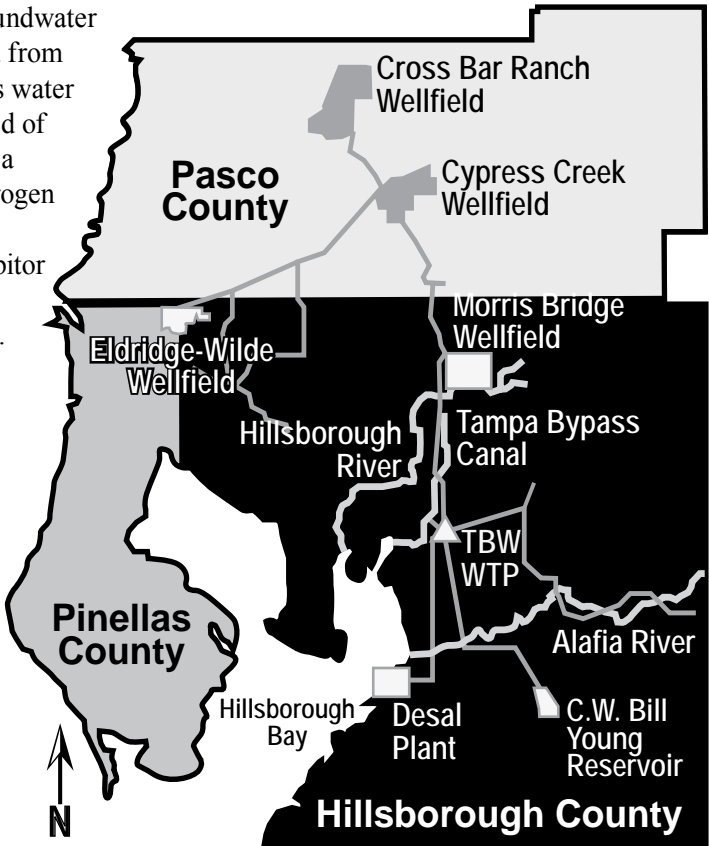
water is transferred to pumping stations where it undergoes additional minor processes before being pumped to homes and businesses through 1,751 miles of pipe in the PCU distribution system.

The blended water provided by TBW was treated by PCU with a polyphosphate inhibitor to control corrosion, and then fluoridated for dental health purposes for calendar year 2011.

The groundwater acquired from the Eldridge-Wilde Well field undergoes water quality enhancements that are comprised 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. For calendar year 2011, as the inhibitor was added, fluoride was also added for dental health purposes. Next, the groundwater 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. *As of December 31, 2011, the addition of fluoride to drinking water supplied by Pinellas County Utilities was discontinued.*

Our Water Sources

Pinellas County Utilities (PCU) customers receive potable (drinking) water from sources managed by the regional water supplier, Tampa Bay Water (TBW). This regional water supply is a blend composed of groundwater, treated surface water and desalinated seawater. Thirteen regional well fields pumping water from the Floridan Aquifer are the



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 stormwater 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 stormwater runoff, and septic systems.
- (E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Public Health

In order to ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system. High turbidity can hinder the effectiveness of disinfectants. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at **1-800-426-4791**.

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/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**).

Lead in Drinking Water

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. Pinellas 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>.

Source Water Assessment

In 2004, the Department of Environmental Protection performed a Source Water Assessment for Tampa Bay Water (TBW). The assessment resultrotection Program website at www.dep.state.fl.us/swapp or s are available on the FDEP Source Water Assessment and Pthey can be obtained from Tampa Bay Water, 2575 Enterprise Road, Clearwater, FL 33763, phone **727-796-2355**.

Between 2004 and 2011, the Department of Environmental Protection performed Source Water Assessments for Tampa Bay Water facilities. The assessments were conducted to provide information about any potential sources of contamination in the vicinity of the Tampa Bay Water surface water intakes. The surface water system is considered to be at high risk because of the many potential sources of contamination present in the assessment area. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp or they can be obtained from Tampa Bay Water, 2575 Enterprise Road, Clearwater, FL 33763, phone **727-796-2355**.

Your Participation Is Welcome!

The Pinellas County Board of County Commissioners meets twice a month, usually, but not always, on the first and third Tuesdays. The earlier meeting in the month begins at 9:30 a.m. Meetings in the latter part of the month are actually held in two parts. Agenda items are discussed with the Board at 2:00 p.m., after which there is a break and the Board reconvenes at 6:00 p.m. The public is invited to attend these meetings held in the 5th floor Assembly Room of the Pinellas County Courthouse located at 315 Court Street, Clearwater, Florida 33756. Meetings are televised live (and closed captioned) on PCC-TV, the Pinellas County Connection Television cable channel, and repeated during the week. The meeting agendas are published on the county's website at www.pinellascounty.org. For more information call **727-464-3485**. Tampa Bay Water's Board of Directors meetings occur on the third Monday of every other (even) month at 9:00 a.m. at 2575 Enterprise Road, Clearwater, Florida 33763. To view their agenda, visit their website at www.tampabaywater.org or call 727-796-2355.



Water Quality Analysis 2011

Pinellas County Utilities (PCU)

Microbiological Contaminants

Contaminant and Unit of Measurement	MCLG	MCL	Dates of Sampling (mo.yr.)	MCL Violation Y/N	Highest Monthly Percentage/ Number		Likely Source of Contamination
Total Coliform Bacteria (positive samples)	0	*	1/11 - 12/11	No	3.4%		Naturally present in the environment
Total Coliform Bacteria: Highest Monthly Percentage/Number is the highest monthly percentage of positive samples for systems collecting at least 40 samples per month. *For systems collecting at least 40 samples per month: presence of coliform bacteria in 5% or more of monthly samples.							
Results in the Level Detected column for radioactive contaminants, inorganic contaminants, and volatile organic contaminants are the highest average at any of the sampling points or the highest detected level at any sampling point, depending on the sampling frequency.							

Radioactive Contaminants

Contaminant and Unit of Measurement	MCLG	MCL	Dates of Sampling (mo.yr.)	MCL Violation Y/N	Level Detected	Range of Results	Likely Source of Contamination
Alpha emitters (pCi/L)	0	15	3/11	No	0.806	ND - 0.806	Erosion of natural deposits

Inorganic Contaminants

Contaminant and Unit of Measurement	MCLG	MCL	Dates of Sampling (mo.yr.)	MCL Violation Y/N	Level Detected	Range of Results	Likely Source of Contamination
Arsenic (ppb)	0	10	3/11	No	0.1	ND-0.1	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	2	2	3/11	No	0.0196	0.0145-0.0196	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	4	4.0	3/11	No	0.73	0.69-0.73	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm.
Nickel (ppb)	NA	100	3/11	No	1.9	0.7 - 1.9	Pollution from mining and refining operations. Natural occurrence in soil.
Nitrate (as Nitrogen) (ppm)	10	10	3/11	No	0.14	0.03 - 0.14	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	NA	160	3/11	No	42.0	8.73-42.0	Salt water intrusion, leaching from soil

Synthetic Organic Contaminants including Pesticides and Herbicides

Disinfectant or Contaminant and Unit of Measurement	MCLG	MCL	Dates of Sampling (mo.yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	Likely Source of Contamination
Dalapon (ppb)	200	200	3/11, 5/11, 9/11, 11/11	No	1.5	0.69 - 1.5	Runoff from herbicide used on rights of way
Hexachlorocyclopentadiene (ppb)	50	50	3/11, 5/11	No	0.017	ND - 0.017	Discharge from chemical factories

Stage 1 Disinfectants and Disinfection By-Products

For chlorine, the level detected is the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. For haloacetic acids or TTHM, the level detected is the highest RAA, computed quarterly, of quarterly averages of all samples collected if the system is monitoring quarterly or is the average of all samples taken during the year if the system monitors less frequently than quarterly. Range of Results is the range of individual sample results (lowest to highest) for all monitoring locations, including Initial Distribution System Evaluation (IDSE) results as well as Stage 1 compliance results.

Disinfectant or Contaminant and Unit of Measurement	MCLG or MRDLG	MCL or MRDL	Dates of Sampling (mo.yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	Likely Source of Contamination
Chlorine (ppm)	MRDLG=4	MRDL=4.0	1/11 - 12/11	No	3.7	1.5 - 5.8	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	NA	MCL=60	1/11 - 12/11	No	21.4	8.5 - 41.18	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	NA	MCL=80	1/11 - 12/11	No	36.5	20.0 - 66.1	By-product of drinking water disinfection

Lead And Copper (Tap Water)

Contaminant and Unit of Measurement	MCLG	AL (Action Level)	Dates of Sampling (mo.yr.)	AL Exceeded Y/N	90th Percentile Result	No. of Sampling Sites Exceeding the AL	Likely Source of Contamination
Copper (tap water) (ppm)	1.3	1.3	6/11 - 7/11	No	0.498	0	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	0	15	6/11 - 7/11	No	1.4	0	Corrosion of household plumbing systems; erosion of natural deposits

Tampa Bay Water (TBW)

Contaminants							
Contaminant and Unit of Measurement	MCLG	MCL	Dates of Sampling (mo.yr.)	MCL Violation Y/N	Highest Single Measurement	Lowest Monthly % of Samples Meeting Regulatory Limits	Likely Source of Contamination
Turbidity (NTU)	NA	TT	1/11-4/11	No	0.41	100	Soil runoff

NOTE: 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.

Radioactive Contaminants

Contaminant and Unit of Measurement	MCLG	MCL	Dates of Sampling (mo.yr.)	MCL Violation Y/N	Level Detected	Range of Results	Likely Source of Contamination
Beta/photon emitters (pCi/L)*	0	Not Established	7/09	No	5.1*	NA	Decay of natural and man-made deposits
Radium 226 + 228 (pCi/L)	0	5	4/11	No	2.3	NA	Erosion of natural deposits
Uranium (ug/L)	0	30	4/11	No	1.9	NA	Erosion of natural deposits

* EPA considers 50pCi/L to be the level of concern for beta particles. Beta results reported in pCi/L. Level detected is the highest detected level at sampling point.

Inorganic Contaminants

Contaminant and Unit of Measurement	MCLG	MCL	Dates of Sampling (mo.yr.)	MCL Violation Y/N	Level Detected	Range of Results	Likely Source of Contamination
Cadmium (ppb)	5	5	4/11	No	0.19	NA	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium (ppb)	100	100	4/11	No	4.9	NA	Discharge from steel and pulp mills; erosion of natural deposits
Lead (point of entry) (ppb)	0	15	1/11, 4/11, 7/11, 10/11	No	7.6	NA	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Nitrite (as Nitrogen) (ppm)	1	1	1/11, 4/11, 7/11, 10/11	No	0.06	ND - 0.06	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	50	50	4/11	No	9.4	NA	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines

Stage 1 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement	MCLG	MCL	Dates of Sampling (mo.yr.)	MCL Violation Y/N	Level Detected	Range of Results	Likely Source of Contamination
Bromate (ppb)	0	10	1/11-12/11	No	4.56	1.57-7.91	By-product of drinking water disinfection

Contaminants

Disinfectant and Unit of Measurement	MRDLG	MRDL (at the entrance to the distribution system)	Dates of Sampling (mo.yr.)	Acute Violations Y/N	Non-Acute Violations Y/N	Level Detected	Likely Source of Contamination
Chlorine Dioxide (ppb)	800	800	1/11-4/11	No	No	725	Water additive used to control microbes
Contaminant and Unit of Measurement	MCLG	MCL	Dates of Sampling (mo.yr.)	MCL Violation Y/N	Highest Monthly Average*	Highest Average**	Likely Source of Contamination
Chlorite (ppm)	0.8	1.0	1/11-4/11	No	0.00527	NA	By-product of drinking water disinfection

*For Highest Monthly Average: three sample set collected in the distribution system. **For Highest Average: three sample set collected in the distribution system following a daily MCL exceedance at the entrance to the distribution system.

Contaminant and Unit of Measurement	MCLG	MCL	Dates of Sampling (mo.yr.)	TT Violation Y/N	Lowest Running Annual Average, Computed Quarterly, of Monthly Removal Ratios	Range of Monthly Removal Ratios	Likely Source of Contamination
Total organic carbon (ppm)	NA	TT	1/11-4/11	No	3.67	3.1-4.0	Naturally present in the environment

Prepared by Pinellas County Utilities, March 2012, with reference to CCR data provided by Tampa Bay Water.

Terms to Know

In the following tables, you may find unfamiliar terms and abbreviations. To help you better understand these terms, we've 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.

Chloramine, (NH₂Cl): A compound made by chemically combining chlorine with ammonia. Monochloramine, one of three possible combinations, is the desired chloramine form for disinfection of potable water.

Chlorine, (Cl): An element used in gaseous form that readily combines with other elements in water to disinfect potable water.

Haloacetic Acids, (HAAs): A group of disinfection by-products formed as a result of the chemical disinfection of water.

Initial Distribution System Evaluation, (IDSE): An important part of the Stage 2 Disinfection Byproducts Rule (DBPR). The IDSE is a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.

Maximum Contaminant Level or 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 or 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 or 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 or 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.

Nephelometric Turbidity Unit, (NTU):

A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Not Applicable, (NA): Not applicable to this contaminant.

Not Detected, (ND): Not detected; indicates that the substance was not found by laboratory analysis.

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.

Picocurie per liter, (pCi/L): A measure of the radioactivity in water.

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

Total Trihalomethanes, (TTHMs):

A group of disinfection by-products formed as a result of the chemical disinfection of water.

Turbidity: Turbidity is 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.

For Your Reference

- Hardness:** Levels range between 150-220 milligrams per liter (mg/L) or parts per million (ppm). This is equivalent to 8-12 grains per gallon (gpg).
- pH:** 7.6-7.9 standard units
- Chloramines:** 1.9-4.6 ppm

Questions?

At Pinellas County, we value our customers and work hard to ensure your satisfaction. If you have questions or comments about this report or other issues, please call us:

Customer Service 727-464-4000
Utilities Laboratory 727-582-2302
Conservation 727-464-3896
Emergencies 727-464-4000

Multi-Unit Customers:

Please display this report in your common area or on a bulletin board. For additional copies, please call **727-464-4000** or visit **www.pinellascounty.org/utilities**.