Naval Support Activity Panama City
2020 Water Sampling Results

Naval Support Activity Panama City purchases potable water from the City of Panama City Beach. A summary of the City of Panama City Beach's water sampling results is provided in their annual Consumer Confidence Report (attached). Naval Support Activity conducts additional periodic water sampling. The results are summarized below.

TOTAL COLIFORM BACTERIA[1]

Contaminant	Sampling Dates	MCL[2]	Total Number of Positive Samples
Total Coliform Bacteria	JAN - DEC 2020	Positive	0

[1] Six samples are collected each month from varying locations at NSA PC and analyzed. The data above is the summary of 72 sample results.

[2] MCL = Maximum Contaminant Level:
The highest level of a contaminant that is allowed in drinking water

DISINFECTION BYPRODUCTS[3]

Contaminant	Sampling Dates	Level Detected (ppb)[4]	MCL (ppb)	MCL Violation Yes/No
Total Haloacetic Acids (HAA5)	FEB, MAY, AUG, NOV 2020	0.83 - 35.0	60.0	No
Total Trihalomethanes (TTHM)	FEB, MAY, AUG, NOV 2020	0.20 - 48.22	80.0	No

[3] Five samples are collected quarterly from varying locations at NSA PC and analyzed. The data above is the summary of 20 sample results.

[4] ppb = parts per billion

INORGANIC AND SECONDARY CONTAMINANTS[5]

Contaminant	Sampling Date	Level Detected (mg/L)[6]	MCL (mg/L)	MCL Violation Yes/No
Barium	25AUG20	0.0077 - 0.0078	2	No
Fluoride	25AUG20	0.68 - 0.70	4.0	No
Mercury	25AUG20	0.0004	0.002	No
Sodium	25AUG20	4.2 - 4.3	160	No
Chloride	25AUG20	5.8 - 6.0	250	No
Copper	25AUG20	ND[7] - 0.22	1	No
Fluoride	25AUG20	0.68 - 0.70	2.0	No
Sulfate	25AUG20	41	250	No
Zinc	25AUG20	0.090 - 0.10	5	No
Total Dissolved Solids	25AUG20	104 - 111	500	No

[5] One Sample collected from two inlet locations at NSA PC. The data above is the summary of results for contaminants detected.

[6] mg/L = milligrams per Liter

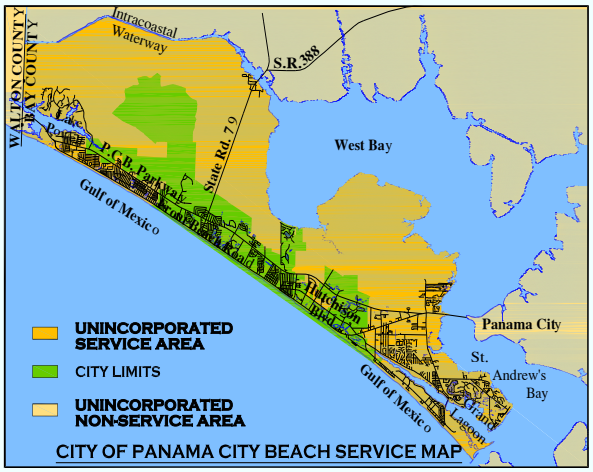
[7] ND - Not Detected

ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2020

CITY OF PANAMA CITY BEACH
17007 PANAMA CITY BEACH PARKWAY
PANAMA CITY BEACH, FL 32413
(850) 233-5100

We are pleased to provide you with this year's Annual Water Quality Report to help keep you informed about the water and services we have delivered to you over the past year. Our goal is to continually provide you a safe and dependable supply of drinking water. This annual report is intended to help you to understand the efforts we make to continually improve the water quality delivered to your address and to protect our water resources. The City of Panama City Beach currently purchases all of the drinking water used in its utility franchise service area from the Bay County Water System.



SURFACE WATER SOURCE

Deer Point Reservoir was created in 1961 to provide a freshwater source for Bay County. The water is pumped several miles to the Bay County Water Treatment Plant. The Bay County Treatment Plant uses a conventional treatment process consisting of coagulation, flocculation, sedimentation, filtration, pH adjustment, disinfection, fluoridation and corrosion control. The treatment process includes adding lime occasionally to provide additional alkalinity to the raw water so that it can react with the primary coagulating chemical, ferric sulfate, which is added to remove particles and organics. Polymer is also added to assist in the coagulation process. Sodium hypochlorite is added to maintain disinfection in the distribution system. The addition of zinc orthophosphate reduces the corrosiveness of the water. Fluoride, in the form of hydrofluosilicic acid, is added as a supplement to prevent tooth decay. Lime is also added at the end of the process to increase the pH. These processes are needed to meet drinking water standards as set by the United States Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP).

Bay County supplies water to both Panama City Beach Ground Storage and Pumping Facilities. Panama City Beach is a wholesale customer of the Bay County system and purchases 100% of its water from the County. The City then provides that water to its customers via our own storage, pumping and transmission system. We do not perform any treatment to the water other than some additional chlorine disinfectant when the levels provided by the County have dropped below the levels needed for the City to maintain chlorination residual requirements set by the EPA and FDEP.

In 2020 the Florida Department of Environmental Protection performed a Source Water Assessment on the Bay County water system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of the Bay County water system surface water intakes. The surface water system is considered to be at high risk because of 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 Bay County Utility Services by calling (850) 248-5010.

CROSS CONNECTION CONTROL

Panama City Beach's Water System was in violation of the Cross-Connection Control Requirement as specified in the State CCC Rules, F.A.C. Rule 62-555.360 &.330. The system began implementing a written cross connection control and backflow prevention program as required on 7/23/20.

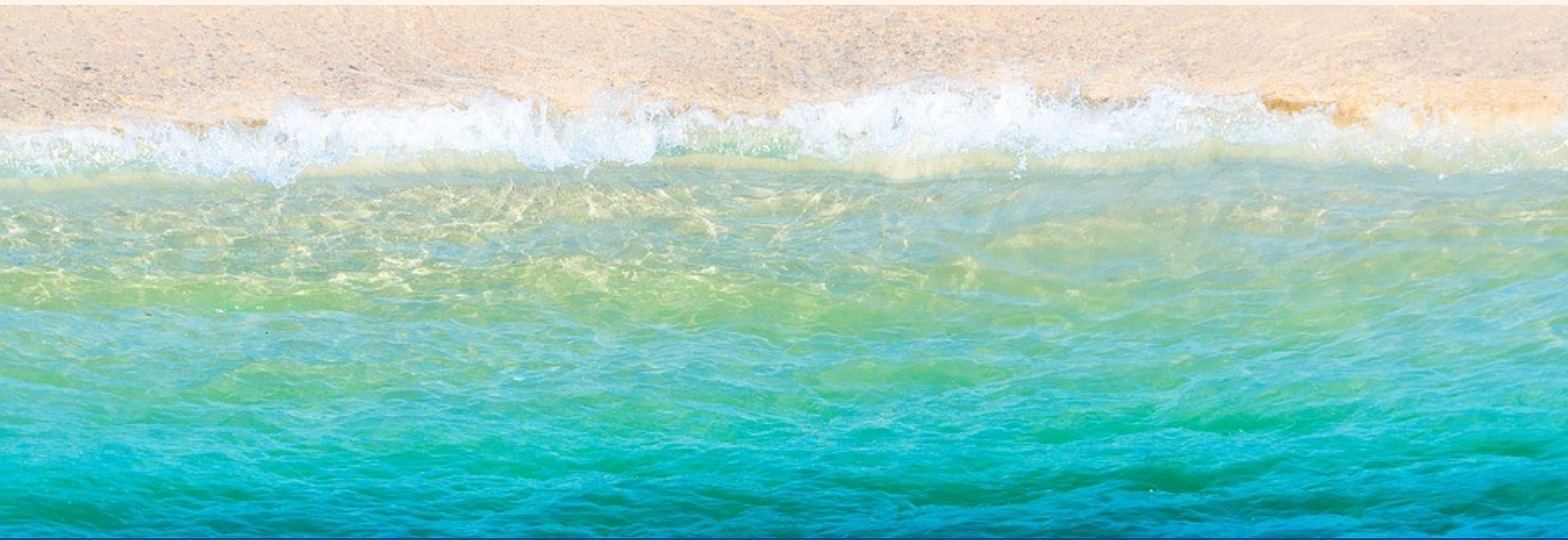
WHAT ARE WE DOING TO MEET THIS REQUIREMENT?

We have implemented a new Cross-Connection Control Program (CCCP) plan, which meets the 2014 rule. All future Panama City Beach water customers with dedicated irrigation service connections will need to install the required pressure vacuum breaker (PVB) or reduced pressure (RP) backflow device. All existing customers with dedicated irrigation services will need to install the required PVB or RP devices within a scheduled timeline.

Please note, all service connections currently have a dual check backflow device that is approved for standard residential connections; however, the device does not meet minimum protection for dedicated irrigation meters as outlined in the 2014 rule. To help customers understand the plan better, Panama City Beach Utilities will have a Q&A sheet available, along with definitions to unfamiliar terms and abbreviations found in the new plan on our website. Handouts of the material will also be available at Panama City Beach Public Services Building

CUSTOMER COMMENTS WELCOME

If you have questions about this report or concerning your water utility, please contact Water Treatment Superintendent Chris Fritze at (850) 236-3039. If you require additional assistance, contact City Hall at (850) 233-5100. You will be referred to the appropriate Utility Department staff member for your inquiry. The Panama City Beach City Council meets twice monthly, on the second Thursday at 6 p.m. and fourth Thursday at 9 a.m. in the City Hall building, 17007 Panama City Beach Parkway. The public is welcome to participate and comment on policy decisions that may affect the quality of the water. We encourage our valued customers to be informed about their water utility.



The City of Panama City Beach routinely monitors 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, 2020. Data obtained before January 1, 2020, and presented in this Report are from the most recent testing done in accordance with the laws, rules and regulations. For those contaminants that were not required to sample this year, the most recent sampling results are listed. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. It's important to remember that the presence of contaminants does not pose a health risk when the concentration is below the applicable standard.

The sources of drinking water (both tap 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:

MICROBIOLOGICAL 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.

The City of Panama City Beach water system did not have any elevated levels of lead in the testing results. However, 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. Panama City Beach's Water System is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

SPECIAL INFORMATION AVAILABLE

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.

2020 WATER QUALITY TABLE

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL Violation Y/N	The Highest Single Measurement	The Lowest Monthly % of Samples Meeting Regulatory Limits	MCLG	MCL/TT	Likely Source of Contamination
TURBIDITY (NTU) *Bay County data*	1/20-12/20	N	0.58	97.20%	N/A	*TT	Soil runoff

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. High turbidity can hinder the effectiveness of disinfectants. The Treatment Technique standard requires that 95% of the turbidity readings be at 0.3 NTU or less.

(A) 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.

(B) During the past year we were required to conduct one (1) Level 1 assessment. One (1) Level 1 assessment was completed. In addition, we were required to take one (1) corrective actions and we completed one (1) of these actions.

INORGANIC CONTAMINANTS (Bay County Data)

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)	20-Apr	N	0.01	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
FLUORIDE (ppm)	20-Apr	N	0.68	N/A	4	4	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)	20-Apr	N	0.075	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
SODIUM (ppm)	20-Apr	N	3.8	N/A	N/A	160	Salt water intrusion, leaching from soil

UNREGULATED CONTAMINANTS - *Sampled by City of Panama City Beach*

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	Level Detected (average)	Range of Results	Likely Source of Contamination
MANGANESE (ppb)	2/20-8/20	4.03	1.60-8.60	Naturally-occurring element; commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemical; essential nutrient
HAA5 (ppb)	2/20-8/20	19.88	8.22-44.00	By-product of drinking water disinfection
HAA6Br (ppb)	2/20-8/20	7.28	4.82-10.19	By-product of drinking water disinfection
HAA9 (ppb)	2/20-8/20	26.49	12.62-52.49	By-product of drinking water disinfection

We monitored for unregulated contaminants (UCs) in 2020 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) or likely sources have been established for UCs. However, we are required to publish the analytical results of our UC monitoring in our annual water quality report. All detections are shown on the table, but if you would like a copy of all our 2020 UC data, contact Chris Fritze at (850) 236-3039. 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.

2020 WATER QUALITY TABLE

LEAD AND COPPER (TAP WATER) - *Sampled by City of Panama City Beach*

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	AL Exceeded Y/N	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (action level)	Likely Source of Contamination
COPPER (TAP WATER) (ppm)	6/20 – 7/20 (Triennial)	N	0.43	0 of 30	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

STAGE 1 & STAGE 2 DISINFECTANTS & DISINFECTION BY-PRODUCTS - *Sampled by City of Panama City Beach*

Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
CHLORINE (ppm)	1/20-12/20	N	1.06	0.87-1.12	MRDLG = 4	MRDL = 4	Water additive used to control microbes
HALOACETIC ACIDS (five) (HAA5) (ppb)	1/20-12/20	N	25.18	ND-53.40	N/A	MCL = 60	By-products of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	1/20-12/20	N	39.83	12.00-89.00*	N/A	MCL = 80	By-products of drinking water disinfection

*Compliance is determined by average of four consecutive quarters. One sample during 2020 (Pirates Cove, September) had a TTHM result of 89 ppb, which exceeds the MCL of 80 ppb. However, the system did not incur an MCL violation because all annual average results at all sites were below the MCL of 80 ppb. 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 systems, and may have an increased risk of getting cancer.

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 *Bay County Data*	1/20-12/20	N	1.5	1.0 - 2.2	N/A	TT	Naturally present in the environment

DEFINITIONS

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

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 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 Residual Disinfectant Level or MRDL - The highest level of a disinfectant that is 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.

(N/A) - Not applicable.

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

Non-Detects (ND) - Not detected and indicates that the substance was not found by laboratory analysis.

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.

Parts per billion (ppb) or Micrograms per liter (µg/l) - One part by weight of analyte to 1 billion parts by weight of the water sample.

Picocuries per liter (pCi/L) - Measure of the radioactivity in water.

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

In order to ensure that tap water is safe to drink, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. 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 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 1-800-426-4791.** MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.