

*The City of Panama City
Presents The
2005 Drinking Water Quality Report*

We are pleased to provide this year's Annual Drinking 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 made to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and work around the clock to provide top quality water to every tap. This report shows our water quality results and what they mean. The City of Panama City purchases water from Bay County Utility Services. The source of that water is Deer Point Reservoir. 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 on Transmitter Road. The 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. Chlorine 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 hydrofluosilic 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 the drinking water standards as set by the United States Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP).

The Department of Environmental Protection completed a Source Water Assessment (SWA) on the Bay County water system in July of 2005. The assessment was conducted to provide information about any potential source of contamination in the vicinity of Bay County's surface water intakes. Potential sources of contamination identified include underground petroleum storage tanks and an industrial waste water treatment facility. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

Bay County has established a Source Water Protection Plan that outlines the structured approach to managing potential sources of contamination within the Deer Point Watershed. Strategies within the plan include monitoring sediment quality and increasing drinking water education and outreach programs.

Expansion and improvement projects are planned in order to continue to meet the needs of the citizens of Bay County. During the fall of 2004, we started a 28 month upgrade/expansion project for the Bay County Water Treatment Plant. This project will increase both the treatment capacity and the water quality level of the plant. As a result, the upgraded water treatment plant will be better able to meet the current and proposed EPA water quality standards.

If you have any questions about this report or concerning your water utility, please contact **Jamie Jones, Assistant Utilities Director/Water Division Manager at 850-784-6123 or Lex Wahl, City of Panama City Environmental Laboratory Superintendent, at 850-872-3194.** The City of Panama City Commission holds regularly scheduled meetings on the second Tuesday of each month at 5:00 p.m. and the fourth Tuesday of each month at 4:00 p.m. We will always make every effort to keep you, our valued customers, informed about your water utility. The City of Panama City and the Bay County Utility Services routinely monitor constituents in your drinking water according to Federal and State laws. The Environmental Protection Agency (EPA) requires monitoring of over eighty drinking water constituents. **Those constituents listed in the table below are the only constituents detected in your drinking water. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It is important to remember that the presence of these constituents does not necessarily pose a health risk.** Except where indicated, the following table shows the results of monitoring for the period of January 1 to December 31, 2005. All monitoring parameters were provided by the Bay County Utilities Services with the exception of Copper which was provided by the City of Panama City Area Environmental Laboratory.

TEST RESULT TABLE

Microbiological Contaminants

Compound and Unit of Measurement	Dates of Sampling (Mo./Yr.)	MCL Violation Y/N	The Highest Single Measurement	*The lowest Monthly Percentage of Samples Meeting Regulatory Limits	MCLG	MCL	Likely Source of Contamination
Turbidity (NTU)	1/05 - 12/05	N	0.39	98.92%	N/A	TT*	Soil Runoff

*The treatment technique standard is: 95% of the turbidity readings must be at 0.3 NTU or less.

Note: The result in the lowest monthly percentage column is the lowest monthly percentage of samples meeting the turbidity limits reported in the Monthly Operating Report.

Turbidity is a measure of cloudiness of the water. Monitoring turbidity is an indication of the effectiveness of the filtration system. Turbidity can interfere with disinfection and provide a medium for microbial growth.

Radiological** and Inorganic Contaminants

Contaminant and Unit of Measurement	Date of Sampling (Mo./Yr.)	MCL Violation Y/N	Level # Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Alpha Emitters ** (pCi/l)	4//02	N	0.2	N/A	0	15	Erosion of natural deposits
Radium 266 and 228** (pCi/l)	4//02	N	1.6	N/A	0	5	Erosion of natural deposits
Arsenic (ppb)	04/05	N	0.38	N/A	N/A	10	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Barium (ppm)	04/05	N	0.0061	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride (ppm)	04/05	N	0.71	N/A	4	4	Erosion of natural deposits; water additive, which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead (point of entry) (ppb)	04/05	N	0.12	N/A	N/A	15	Residue from man made pollution such as auto emissions and paint, lead pipe, casing and solder.
Nitrate (as Nitrogen) (ppm)	04/05	N	0.076	N/A	10	10	Runoff from fertilizer use, leaching from septic tanks, sewage; erosion of natural Deposits.
Nickel (ppb)	04/05	N	0.40	N/A	N/A	100	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits

Sodium (ppm)	04/05	N	2.9	N/A	N/A	160	Salt water intrusion; leaching from soil
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Results in the Radiological** and Inorganic Contaminants "Level Detected Column" are the highest average at any of the sampling points, or the highest detected level at any sampling point, depending on the sampling frequency .

Stage 1 Disinfectant/Disinfection By-Product (D/DBP) Parameters

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected ##	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Haloacetic Acids (five) (HAA5) (ppb)	1/05-12/05	N	39	4.9-90	N/A	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	1/05-12/05	N	43	10.3-166	N/A	MCL = 80	By-product of drinking water disinfection
Chlorine (ppm)	1/05-12/05	N	1.06	0.7-1.4	MRDLG = 4	MRDL= 4.0	Water additive used to control microbes

##: The result in the "Level Detected Column" for TTHMs is the highest of the four quarterly running annual averages of results from all sampling sites.

Total Organic Carbon

Contaminant and Unit of Measurement	Dates of Sampling (Mo. /Yr.)	TT Violation Y/N	Level Detected (Removal Ratio)	Range (Removal Ratio)	Required Ratio	MCLG	MCL	Likely Source of Contamination
Total Organic Carbon (TOC) (ppm)	1/05-12/05	N	1.5	1.0-2.26	At least 1.0	N/A	TT Removal ratio >1	Naturally present in the environment

Note: The result in the "Level Detected" Column for TOC is the highest of the four quarterly running annual averages of results from all sampling sites.

Total Organic Carbon and Possible Health Effects

Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

Copper (Tap Water)

Contaminant and Unit of Measurement	Dates of Sampling (Mo./Yr.)	AL Violation Y/N	90 th percentile result	Number of sampling sites exceeding the AL	MCLG	AL	Likely Source of Contamination
Copper (ppm)	08/04	N	0.184	0 of 31	1.3	1.3	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives

Secondary Contaminants

Contaminant and Unit of Measurement	Dates of Sampling (Mo./Yr.)	MCL Violation Y/N	The Highest Single Measurement	Range of Results	MCLG	MCL	Likely Source of Contamination
Aluminum (ppm)	04/05	Y***	0.39	0.046-0.39	N/A	0.2	Natural occurrence from soil leaching

***During April 2005, the Aluminum test result was 0.39 ppm, however, Bay County believes the higher than usual level was the result of the water treatment plant testing use of Alum in place of Ferric Sulfate as a coagulant. After Bay County discontinued the use of Alum, a retest was done in July of 2005 with results of 0.046, well below the MCL. Aluminum is a secondary contaminant and as such is not a health concern at low levels

TERMS AND ABBREVIATIONS

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 - The "Maximum Allowed" (MCL) is 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 - The "Goal"(MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum residual disinfectant level (MRDL) – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum residual disinfectant level 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.

Non-Applicable (N/A) - Does not apply.

NTU - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Parts per Million (ppm) or Milligrams per liter (mg/l) - One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per Billion (ppb) or Micrograms per liter - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocurie per liter (pCi/L) – Measure of the radioactivity in water

TT- A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

We have learned through our monitoring and testing that some contaminants have been detected. This report shows our water quality results and what they mean. The sources of drinking water (both tap water and bottled water) includes 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that must provide the same protection for public health. All 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 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 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/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 at 800-426-4791. Please call our office if you have questions.

Thank you for allowing us to continue providing your family with clean, quality water this year. We at the City of Panama City work continually to provide top quality water to every tap. We ask that all of our customers help us to protect our water sources, which are the heart of our community, our way of life, and our children's future.

Data obtained before January 1, 2005 and presented in this report are from the most recent testing done in accordance with the laws, rules and regulations.