

# 2007 MCB QUANTICO ANNUAL DRINKING WATER QUALITY REPORT CAMP BARRETT (TBS / FBI / WTB) WATER SYSTEM



## Introduction

We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality of 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 are committed to ensuring the quality of your water. To help us meet this goal, we have established a water quality response team. Personnel from the Naval Medical Clinic join with our Water Quality Assurance Technician, to respond to customer concerns and water quality questions. Together, they have the resources to test the chemical and bacteriological quality at the consumer's tap.

*The water is processed at the Water Treatment Plant in Stafford County.*

## Summary

Both Stafford County and MCB Utilities routinely monitor for contaminants in your drinking water according to Federal and State laws. This report shows the results of our monitoring for the period of **January 1 to December 31, 2007**.

As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be expected to contain at least small amounts of some constituents.

It's important to remember that the presence of these constituents does not necessarily pose a health risk. In order to ensure tap water is safe to drink, the USEPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems.

The VDH, Office of Drinking Water, enforces the regulations. More information about contaminants and potential health effects can be obtained by calling the USEPA's *Safe Drinking Water Hotline* at **1-800-426-4791**.

## Sources

We have 3 different sources of water at Quantico and each source tastes a little different. We encourage our customers to report bad tasting or discolored water. At that time we will visit the site and determine if we need to run additional tests.

## The Facts

This report contains information on all regulated contaminants found in your drinking water. Additionally, over 85 water tests are performed for a variety of contaminants **not** found in the water delivered to the Base. An explanation of the results is included.

*Maximum Contaminants Levels (MCL)* 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.

## Microbiological Contamination

**Total Coliform:** Coliforms are bacteria that are present naturally in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. When Coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If the limit is exceeded, the water supplier must notify the public by newspaper, radio or television.

*We are pleased to report there was no positive bacteriological test in the distribution systems at TBS / FBI / WTB.*

*Stafford County's Smith Lake water treatment plant and distribution system was in compliance for microbiological testing for 2007.*

*If you have any questions about this report or concerning your water utility, please contact **Carl Morgans**, Water/Wastewater Commodities Manager, Public Works Branch at (703) 784-5201.*

## Should some people take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population.

Immune system 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. We constantly monitor the water supply for various constituents.

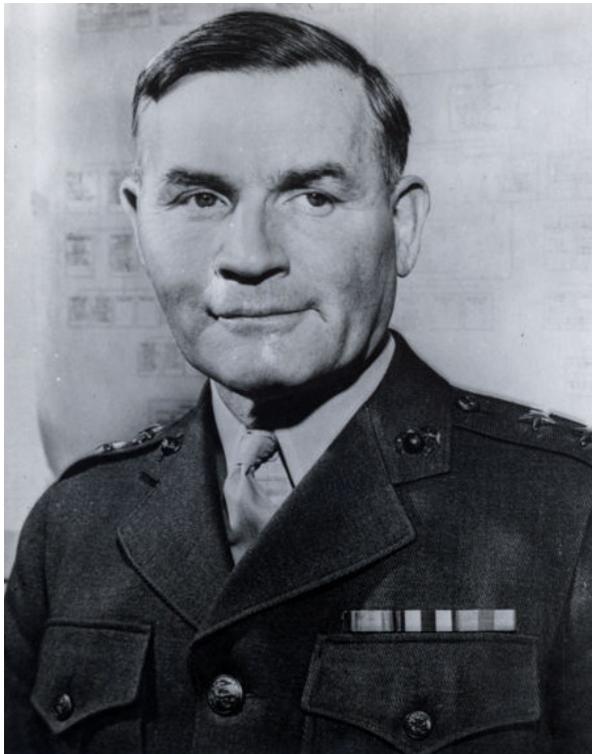
Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels in your home may be higher than at other homes in the community as a result of materials used in your home's plumbing.

If you are concerned about elevated lead levels in your home's water you may wish to flush your tap for 30 seconds to 2 minutes before using tap water.

*The lead levels found in samples taken on Base are well below regulatory limits.*

*The drinking water hotline can answer your questions about lead contamination. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at 1-800-426-4791.*

*We strongly recommend that our customers not use water from the hot water tap for consumption.*



Marine Major General Charles Dodson Barrett, the first Commanding General of the 3d Marine Division, was awarded the Distinguished Service Medal posthumously in recognition of his outstanding service during World War II. Born August 16, 1885 in Henderson, Kentucky. Killed accidentally while on duty in the South Pacific October 8, 1943.

Any contaminants found in the water may accumulate in the hot water tank. This would be true anywhere, regardless of the water source. This does not mean that there is anything wrong with our drinking water.

All water tests are conducted on water from the cold-water tap. Our concern is that the water quality is unknown when water from the hot-water tap is consumed. We believe you are better served by heating cold-water for this purpose.

## Additional Monitoring:

### Individual Distribution System Evaluation (IDSE)

Currently, the Base is waiting for approval of the IDSE plan submitted to VDH ODW in 2007. The IDSE plan when implemented will increase the number of collection points in TBS, FBI, & WTBN areas.

The evaluation of the distribution system is so the Base can better monitor Disinfection Byproducts through the distribution system. The testing will help the Base monitor the age of water in the distribution system and decrease disinfection by-products.

With this information the Base can locate problem areas and make decisions for improvements, such as change in storage capacity or change the distribution hydraulics so as to maintain fresh water throughout the system.

## Conclusion

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all of our customers.

As reported in the *Quantico Sentry*, water mains and fire hydrants are flushed twice a year. This may cause temporary water discoloration. We apologize for any inconvenience. Our goal is to provide water of excellent quality to every customer. We work around the clock to provide top quality water to every tap.

Our customers can help protect themselves and our water system by careful use of this resource, which is the heart of our community, our way of life, and our children's future.

*If you have questions about what you can do to help, please contact **Carl Morgans**, Water/Wastewater Commodities Manager, Public Works Branch at (703) 784-5201.*



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CAMP BARRETT (TBS / FBI / WTB) WATER SYSTEM



BACTERIOLOGICAL QUALITY						
Microbiological Contaminates	MCLG	MCL	Percent Positive	Highest no. Positive	In Compliance	Source
Total Coliform Bacteria	0	One Sample per Month	0	0	Yes	Naturally present in the environment

We may not exceed one positive sample a month.  
We are proud to report there were no positive samples for 2007.

REGULATED CONTAMINANTS

METALS								
Parameter	Units	MCLG	Action Level	Results	No. of Sites Exceeding AL	Range	In Compliance	Source
Copper **	ppm	1.3ppm	90% of samples tested must be below 1.3ppm.	All samples were below 1.3ppm	0	.20 ppm is the lowest detection level for copper, range of test < .20 - .75 ppm.	Yes	Corrosion of household plumbing systems
Lead **	ppb	15ppb	90% of samples tested must be below 15ppb.	100% of samples tested below 15ppb	0	2 ppb is the lowest detection level for lead, range of test < 2 - 6.65 ppb.	Yes	Corrosion of household plumbing systems

\*\* The Lead and Copper results are from August 2007. Next test to be conducted in June 2010.

THM ( Trihalomethanes )								
Parameter	Units	MCLG	MCL	Highest	Range	Average	In Compliance	Source
TTHM	ppb	n/a	80	51	13-51	33	Yes	By-product of drinking water disinfection.

Compliance is based on a 4 quarter running average, that value was 33 ppb.

HAA5 ( Halo, Acidic Acids Group 5 )								
Parameter	Units	MCLG	MCL	Highest	Range	Average	In Compliance	Source
HAA5	ppb	n/a	60	60	17-60	33	Yes	By-product of drinking water disinfection.

HAA5 compliance is based on a 4 quarter running average, that value was 33 ppb.

REGULATED CONTAMINANTS (continued)  
Additional information as reported by Stafford County Smith Lake Water Plant

FLUORIDE							
Parameter	Units	MCGL	MCL	Average	Range	In Compliance	Source
Fluoride	ppm	4	4	0.91	0.41-1.11	Yes	Added for healthy teeth.

CHLORINE (Cl <sub>2</sub> )							
Parameter	Units	MRDL	MRDLG	Highest	Range	In Compliance	Source
Chloramines	ppm	4	4	2.10	0.0-3.5	Yes	Used for disinfection

RADIOLOGICAL							
Parameter	Units	MCLG	MCL	Highest	Range	In Compliance	Source
Gross Alpha	pCi/L	0	15	0.1	one test	Yes	Erosion of natural deposits.

NITRATE + NITRITE							
Parameter	Units	MCLG	MCL	Results	In Compliance	Source	
Nitrate + Nitrite	ppm	10	10	0.13 one test	Yes	Erosion of natural deposits, fertilizer runoff.	

CYANIDE							
Parameter	Units	MCLG	MCL	Results	In Compliance	Source	
Cyanide	ppb	200	200	10	One test	Yes	Discharge from metal, plastic & fertilizer factories.

TOTAL ORGANIC CARBONS ( TOC )							
Parameter	N/A	Treatment Technique, % of removal must be above 1.0 TT	Results	In Compliance	Source		
TOC			1.4 Average for year	Yes	Naturally present in the environment		

UNREGULATED OR SECONDARY CONTAMINANTS (samples taken from the water distribution system)

Parameter	Results	Range of Results	Units	SMC	SMCLG	In Compliance	Source
Chloride	14.6	1 test performed	ppm	250	None	Yes	All of these can be found in trace amounts in the chemicals used to treat the water, some are also found in the source water and are naturally occurring
Orthophosphate	0.32	1 test performed	ppm	none	None	N/A	
Sodium	26.8	1 test performed	ppm	none	None	N/A	
Sulfate	45.5	1 test performed	ppm	250	None	Yes	

WATER QUALITY ( Key to Abbreviations )	
Non-Detects (ND)	Laboratory analysis indicates that the constituent is below the detection level.
Parts per million (PPM)	One part per million corresponds to one minute in two years, or a penny in \$10,000.
Milligrams per liter (Mg/L)	Milligrams per liter is the same as parts per million.
Parts per billion (ppb)	One part per billion corresponds to one minute in 2000 years, or a penny in \$10,000,000.
Micrograms per liter (µL or mcl)	Micrograms per liter is the same as parts per billion.
Picocuries per liter (pCi/l)	Picocuries per liter is a measure of the radioactivity in the water.
Nephelometric (NTU)	Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just visibly cloudy.
Action Level (AL)	Concentration of a contaminant which, if exceeded, triggers treatment or other requirements a water system must follow.
Treatment Techniques (TT)	A treatment technique is a required process intended to reduce level of contaminant in drinking water
Maximum Contaminant Level (MCL)	The "Maximum Allowed" is the highest level of contaminant allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
Maximum Contaminant Level Goal (MCLG)	The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk. MCLG's allow for a margin of safety.
MRDL	Maximum Residual Disinfection Level. The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfection is necessary for control of microbial contaminants.
MRDLG	Maximum Residual Disinfection Level Goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants.

*We don't often pause to consider the incredible value of a safe, reliable water supply and the water system that delivers it in our everyday lives. But consider what tap water does that no other water can do.*

### Only tap water delivers public health protection:

In a world where an estimated 3 million people die every year from preventable waterborne disease, our water systems allow us to drink from virtually any public tap with a high assurance of safety. Each community water supply meets rigorous federal and state health-protective standards.

### Fire protection:

A well-maintained water system is critical in protecting our communities from the ever-present threat of fire. A system that provides reliable water at an adequate pressure can be the difference between a small fire and an urban inferno. The ability to suppress fires also influences new home construction, business location decisions and insurance rates.

### Support for the economy:

Businesses or housing developments do not succeed without a safe and sustainable water supply. Tap water is critical to businesses' day-to-day operations and is often a primary ingredient in the products they create. The incredible value of water is magnified during times of drought and when populations expand into arid climates.

### The overall quality of life we enjoy:

Any measure of a successful society (low mortality rates, economic diversity, productivity, and public safety) is in some way related to access to safe water.

In North America, we take for granted that safe water is always accessible to drink, to wash our clothes, to water our lawns and for a myriad of other purposes. When water service is interrupted, we're all reminded of the extraordinary value of water resources and service.

**UP TO 60 % OF THE HUMAN BODY IS WATER... WATER ALLOWS OUR BODIES TO WORK.**

