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. NAVFAC Southeast, PWD Mayport, 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.

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. FDA regulations establish limits for contaminants in bottled water which 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.

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. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

For further information or questions concerning this report, please contact your PWD Mayport Utilities Branch, at (904) 270-3182. Additionally, Navy personnel who live off-base, or in private residences, can also contact PWD Mayport for general questions on water quality, or to determine who to contact for information on the water utility servicing your area.

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).

2013
Annual Water Quality Report

Naval Station Mayport

2013

Water Quality Report
NAVAL STATION MAYPORT

The Naval Facilities Engineering Command (NAVFAC) Southeast, Public Works Department (PWD), Naval Station (NS) Mayport, Florida is your water utility service provider. We are very pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and has always been, to provide you with a safe and dependable supply of drinking water. Our water source is three deep wells which draw from the Floridan Aquifer. Treatment of your water supply includes aeration for odor control, and disinfection through chlorination. In 2013, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on our system. This assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are eight potential sources of contamination identified for this system with low to moderate susceptibility levels. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at **www.dep.state.fl.us/swapp.**

NAVFAC Southeast, PWD Mayport, routinely monitors for contaminants in your drinking water according to Federal and State laws and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period January 1, 2013 to December 31, 2013. Data obtained before January 1, 2013, and presented in this report, are from the most recent testing done in accordance with the laws, rules, and regulations.

In the table below you may find unfamiliar terms and abbreviations. 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 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 Disinfection Level (MRDL) – The highest level of a disinfectant allowed in drinking water. There is a 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.

Not Applicable (N/A) – No value limit or restriction has been applied to this particular parameter.

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

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

Parts per million (ppm) - one part per million corresponds to one minute in two years or a single penny in $10,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

TEST RESULTS TABLE – NAVSTA MAYPORT

Microbiological Contaminants

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Total Number of Positive Samples for the year	MCLG	MCL	Likely Source of Contami-nation	Contaminant and Unit of Measuement
Fecal coliform and *E.coli* in the distribution system (positive samples)	Monthly	N	1	0	0	Human and animal fecal waste	Human and animal fecal waste

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
Antimony (ppb)	06/11	N	2.1	N/A	6	6	Discharge from petroleum refineries; fire retardants, ceramics; electronics; solder**.**
Barium (ppm)	06/11	N	0.026	N/A	N/A	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	06/11	N	0.69	N/A	4	4	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
Sodium (ppm)	06/11	N	21	N/A	N/A	160	Salt water intrusion, leaching from soil

Stage 1 Disinfectants and Disinfection By-Products

Note: The results in the Level Detected column are the annual average of quarterly averages. The Range of Results is the range of results (lowest to highest) at the individual sampling sites for Stage 1 monitoring.

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
Total Trihalomethanes (TTHM) (ppb)	Quarterly	y	82.03	57.47-106.32	N/A	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5) (ppb)	Quarterly	N	17.76	15.11-20.44	N/A	60	By-product of drinking water chlorination
Chlorine Residual (ppm)	Monthly	N	0.918	0.76-1.09	4	4.0	Water additive used to control microbes

Stage 2 Disinfectants and Disinfection By-Products

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
Haloacetic Acids (HAA5) (ppb)	10/13-12/13	N	NA\/A	14.87-18.46	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	20/13-12/13	N	N/A	48.6-59.09	N/A	80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	AL Violation Y/N	90TH Percentile Result	No. of sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	08/13-09/13	N	0.048	0 of 66 sites	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	08/13-09/13	N	0.9	0 of 66 sites	0	15	Corrosion of household plumbing systems; erosion of natural deposits

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. Our water system was in violation of federal and state water quality standards for Total Trihalomethanes from July 2013 through September 2013, and back in compliance since October 2013. The levels of Total Trihalomethanes are shown in the Test Results Table above. 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.

Corrective actions taken to reduce Total Trihalomethanes in the water distribution system consisted of: adjusting our strategic flushing plan and utilizing the smaller water storage tank to reduce detention time for water resupply in the distribution system; increased internal sampling/monitoring beyond minimum regulatory requirements to ensure improved water quality; awarded contracts to modernize the operating controls at the water treatment plant and replacement of other plant equipment. These actions have resulted in a minimum TTHM reduction of 28% (65 ppb max). Since the fourth quarter fiscal year 2013, the range of TTHM results has been reduced to 48-65 ppb.

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 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.