Table 2: Detected Organic Contaminants

Parameter	Units	Sample Date	MCL	MCLG	Kings Bay Results[1]	Range of Detections	Violation (Yes/No)	Likely Source of Contamination
TTHMs[1]	ppb	2014	80	N/A	43.9 (4QRA)	37.5 – 49.3	No[1,2]	By-product of drinking water chlorination
HAA5s[1]	ppb	2014	60	N/A	8.1 (4QRA)	7.4 – 8.4	No[1,2]	
TTHMs[1] Site 2	ppb	2014	80	N/A	49.5 (4QRA)	42 – 53.6	No[1,2]	
HAA5s[1] Site 2	ppb	2014	60	N/A	8.55 (4QRA)	8.2 – 9.2	No[1,2]	

1. Total Trihalomethanes (TTHMs) and Total Haloacetic Acids (HAA5s) is the sum of detected concentrations of individual byproducts. They form because chlorine used for disinfection also reacts with low concentrations of organic materials present in the raw water. The data are evaluated by averaging the current quarter result with the previous three quarters to obtain a Four Quarter Running Average (4QRA). A violation occurs when the 4QRA exceeds the MCL. With the new Kings Bay Water Plant, our results are well below the MCL.
2. **Trihalomethane Health Effects**: Some individuals 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. As can be seen in the table our results are very much lower than the applicable standard.

Table 3: Unregulated Inorganic Monitoring Results

Parameter	Units	Sample Date	SMCL	MCLG	Kings Bay Results	Range of Detections	Violation (Yes/No)	Erosion of natural deposits.
Sodium	ppm	2014	N/A	N/A	14.1[1]	N/A	No	Erosion of natural deposits.
Sulfate	ppm	2014	250	N/A	39.5	N/A	No	

1. Based on this value Kings Bay's water has 3.3 mg of sodium per 8 oz. serving. This is provided for individuals on sodium restricted diets. This is value is much lower than of the value seen in previous years past due to the nanofiltration process used in the new water plant.

Table 4: Lead and Copper (Tap Water) Monitoring Results

Parameter	Units	Sample Date	Action Level	MCLG	90th Percentile	No. of Sites Exceeding AL	Violation (Yes/No)	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	ppm	9/14	15	0	2.5	1 of 10	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppb)	ppm	9/14	1300	1300	52	0 of 10	No	

The single exceedance for Lead in 2014 was in an unoccupied Quarters Building. This building is under renovation and will be retested once complete.

USEPA and Georgia EPD have asked that we inform you about the health effects of lead as outlined below.

Health Effects of Lead 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. The Kings Bay Community 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 two 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 (800) 426-4791 or at http://www.epa.gov.safewater/lead.

Table 5: Bacteriological Monitoring Results

Biological Parameter (Presence or absence of bacteria in sample)	Units	Sample Date	MCL	MCLG	Kings Bay Results	Violation (Yes/No)	Likely Source of Contamination
Total Coliform	(Number of Detections)	2014	0	0	0	No	Naturally present in the environment
Fecal Coliform		2014	0	0	0	No	Warm blooded animals

1. Thirty sample points routinely tested at Kings Bay. Ten points are sampled each month with a total of 124 regular and special tests in 2013.

Table 6: Radionuclides Table

Parameter	Units	Sample Date	MCL	MCLG	Kings Bay Results	Range of Detections	Violation (Yes/No)	Erosion of natural deposits.
Alpha Emitters	pCi/l	2013	15	0	<3	N/A	No	Erosion of natural deposits.
Radium 226	pCi/l	2013	5	0	<1	N/A	No	
Radium 228	pCi/l	2013	5	0	<1	N/A	No	

pCi/l: = *picoCuries per liter is a measure of the amount of radioactivity in a sample.*

DEPARTMENT OF THE NAVY
Kings Bay Community Water System
Public Affairs Office / Public Works
1063 USS Tennessee Avenue
Kings Bay, GA 31547
Official Business

Community Confidence Report

2014

Kings Bay Community Water System

Georgia ID N° GA0390013

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by
The Kings Bay
Environmental Directorate

Summary of Water Quality Information

The Kings Bay Community Water System is owned and operated by Naval Submarine Base Kings Bay Georgia for supplying the water needs of housing, training and submarine support activities.

To report leaks or concerns with your water:
For Family Housing Areas: 882-1211 or 882-2653
For SUBASE Immediate Needs Call SCADA: 573-2724
Routine work orders by Building Managers: 573-2300.

The Kings Bay Water Source

Three 900 foot deep artesian wells from the Upper Floridan Aquifer located on the Naval Submarine Base (SUBASE) Kings Bay provide our water. They are housed in secure buildings to protect them from outside sources that could contaminate our water supply. A Source Water Assessment Plan (SWAP) completed in May 2003 by the Georgia Environmental Protection Division indicates our wells are at low risk for contamination. The plan also explains procedures for protecting our water supply. In the USA drinking water can come from a number of sources including rivers, lakes, streams, ponds, reservoirs, springs and wells. Groundwater from "confined" aquifers such as the Upper Floridan is considered to be among the best water available to consumers. As water moves 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. Our testing does not show this to be a problem with our water supplies.

Testing to Keep You Safe:

The water we provide is constantly tested; each year more than 10,000 tests are run to ensure safe, high quality potable water for our customers. This report provides you with the information you need to know about the sources of SUBASE drinking water, what is in it and how it compares to regulatory agency standards. All plant operators and lab technicians hold state certification. The Safe Drinking Water Act (SDWA) requires all water systems to provide their customers with an annual water quality report. The tests reported here are from January 1 through December 31, 2014 except for a few tests as noted in this report that are not done annually. Your Kings Bay Water Department is committed to providing you with clean and safe water. We are pleased to report again this year our water meets the standards of the SDWA without any exceptions.

How We Produce Water

The Kings Bay Water System provides treated water 24 hours every day. Water is treated to remove contaminants by membrane filtration, aeration, chlorination and fluoridation. Water testing is performed throughout the system on a variety of schedules ranging from daily to annually and other intervals, depending on the test. An inspection conducted by Georgia Environmental Protection Division in April 2014 found no problems.

Ensuring Safe Water

To insure that tap water is safe to drink, EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. Bottled water is regulated by the U. S. Food and Drug Administration and must provide the same protection for public health as public water supplies. Drinking water and bottled water may reasonably be expected to contain 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 at:

EPA Safe Drinking Water Hotline (800) 426-4791
Or on-line at www.epa.gov/safewater.

Vulnerability to Contaminants

Some people may be more vulnerable to contaminants in drinking water than the general population. People with compromised immune systems such as those undergoing chemotherapy, with organ transplants, with HIV/AIDS or other immune system disorders, some elderly and infants may be at risk from infection. 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 microbial contaminants are available from:

The Safe Drinking Water Hotline: (800) 426-4791
or on-line at www.epa.gov/safewater.

Water Conservation: USING WATER EFFICIENTLY

Water conservation is always a good idea. A good way to think of it is using water efficiently. It's a gift that we can give ourselves that provides for the future. This takes added importance because of continuing drought conditions in Georgia. The past few years have been quite dry and these conditions appear to be continuing.

Coastal Georgia has an additional set of issues besides drought due to increased demand for water in this area. High withdrawal rates in some areas have resulted in saltwater intrusion into water resources used along the coast. This is already causing restrictions on growth and greater regulation of groundwater supplies along the coast which SUBASE is subject to just as local communities are.

SUBASE is complying with Presidential Executive orders mandating reductions for water usage at all facilities. The goal is to reduce usage by 2% per year through 2025. We have exceeded this ambitious goal, but the help of every person at SUBASE is needed to continue to meet it.

There are many simple ways to be efficient in use of water in daily activities. Let's use them and reap the benefits. One good information source for water savings at home is: http://www.conservewatergeorgia.net/

An additional benefit when we conserve water is the energy savings that nearly always accompanies it When you find a new way to be water efficient, **SHARE** it with your neighbors and coworkers.

Working together we can all benefit from these efforts.

Drought Conditions in Georgia

At this time, there are not Drought Conditions declared by the State of Georgia, EPD. SUBASEINST 11330.1B, SUBASE GUIDE FOR COMPLIANCE WITH GEORGIA OUTDOOR WATER USE RULES, will be followed until further notice.

Hydrants may only be used for firefighting or other public health & safety purposes.
For more information on watering see the following web site: http://www.gaepd.org/Documents/outdoorwater.html

THE WATER TREATMENT PLANT:

The Kings Bay Public Works Dept. teamed up with the Naval Facilities Engineering Command to upgrade our Water Treatment Plant to a state of the art treatment plant that alleviates trihalomethanes (THMs) of concern in the water chlorination process. With two successful years of operation completed in 2012 we continue with excellent results in reducing THMs as shown in the table below.

Definitions of Terms and Abbreviations in this Report:

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 (MCL): *The highest level of a contaminant that is allowed in drinking water. MCLs are set as a close to the MCLGs as feasible using the best available treatment technology.*

Maximum Contaminant Level Goal (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.*

Secondary Maximum Contaminant Level (SMCL): *reasonable goals for drinking water quality. Exceeding SMCLs may adversely affect odor or appearance, but there is no known risk to human health.*

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 microbiological 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.*

N/A : *Not Applicable.*

N/D : *Not Detected, The contaminant was not detected*

ppb or µg/l: *parts per billion or micrograms per liter (µg/l) (Note that one ppb is equivalent to one second in 32 years)*

ppm or mg/l: *parts per million or milligram per liter (mg/l) (Note that one ppm is equivalent to one second in 12 days)*

pCi/l: *picoCuries per liter is a measure of the amount of radioactivity in a sample.*

Potential Contaminants

Microbial contaminants, [None Detected] such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. Data are given in Table 5.

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. There were only low levels of a few naturally-occurring ones out of all tests run. See Tables 1, 3 and 4. There were none that exceeded the MCL.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses. None Detected at SUBASE. See Table 2.

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. Only byproducts of water disinfection as shown in Table 2 were found.

Radioactive contaminants, which can be naturally occurring or be the results of oil and gas production and mining activities. None have been detected. See Table 6.

TABLE 1 – Inorganic Contaminants Detected In Water Distributed to Customers

Parameter	Barium	Copper	Chlorine	Fluoride
Units	ppb	ppb	ppm	Ppm
Sample Date	2014	2014	2014	2014
MCL / [SMCL]	2,000	1,300	4 [2]	4
MCLG	N/A	1,300	N/A	4
Highest Level Detected	10	42.6	2.8	1.10
Range of Detections	10	42.6	0.5 – 2.8	0.40 – 1.10
Violation (Yes / No)	No	No	No	No
Possible Sources of Contaminant	Barium, Copper & Fluoride: Erosion of natural deposits; Fluoride is an additive that promotes strong teeth. Chlorine is an additive used to control microbes.			

For copies of this report or for more information on it, please contact Mr. Scott Bassett, Kings Bay's Public Affairs Office, at (912) 573-4714.