2013 Consumer Confidence Report
Camp Shields
Drinking Water System

Commander, Fleet Activities, Okinawa

This report meets Commander, Naval Facilities Engineering Command Policy Letter 5090, Ser EV/10011, 06 July 10.

Introduction

Commander, Fleet Activities, Okinawa (CFAO) is pleased to provide our customers with this annual Consumer Confidence Report (CCR) for the CFAO Drinking Water System that supports Camp Shields. CFAO occupied facilities on Kadena Air Base and the Military Housing are covered by the Air Force CCR. The web site for accessing the Air Force CCR is listed in the "Additional Sources of Information" on page 2.

This report explains where our water comes from and summarizes the quality of water we received at Camp Shields in 2013. Our goal is to continue providing safe, dependable and clean drinking water.

Source of Water

The drinking water for Camp Shields comes from the following surface water sources: Fukuji Dam, Arakawa Dam, Aha Dam, Fungawa Dam, Benoki Dam, Taiho Dam, Haneji Dam, Kurashiki Dam, Kin Dam, Kanna Dam, Yamashiro Dam, and rivers that are located in the northern and central areas of the Main Island of Okinawa (Figure 1). Small amounts also come from the ocean and an underground source, the Kadena Wells.

Water from these sources is filtered and disinfected at the Chatan Water Treatment Plant (WTP). The Chatan WTP, then, supplies the treated water to various municipalities. We purchase our drinking water from Okinawa City for Camp Shields.

Water Distribution Systems

The Naval Facilities Engineering Command Far East Public Works Department Okinawa (PWD) operates the water distribution system servicing Camp Shields. The purchased water is temporarily stored in water tanks before distributed to the facilities.

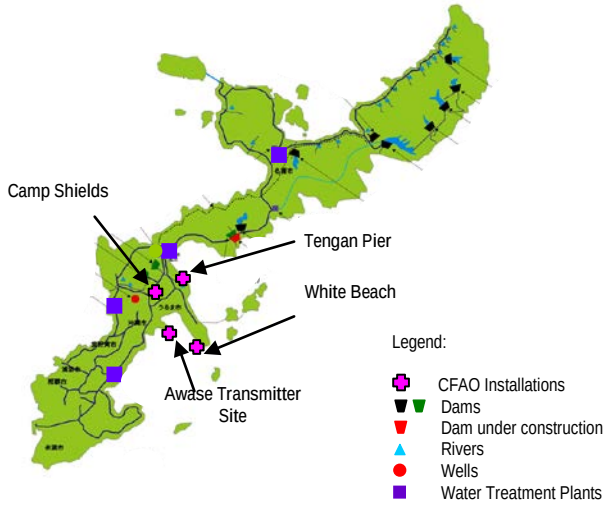

Figure 1 Water Sources and Water Facilities on Main Island of Okinawa

Water Quality

Our drinking water is required to meet the water quality standards established in the Japan Environmental Governing Standards (JEGS) and the U.S. National Primary Drinking Water Regulations (NPDWR). The JEGS are Department of Defense (DoD) governing standards intended to ensure DoD activities and installations in Japan protect human health and the environment and to ensure safe drinking water is provided to all DoD personnel. The U.S. Navy adopted the NPDWR in 2013 for the drinking water provided at the overseas U.S. Navy installations to meet U.S. drinking water quality standards. To continually ensure that our water is safe to drink, the JEGS and the NPDWR require us to regularly monitor and test our water for contaminants.

Our drinking water in 2013 met all water quality standards except lead at Bldg. 8215. The lead in drinking water at this building exceeded the

standard due to corrosion of the building plumbing. We resolved the issue by replacing the portion of building plumbing that caused the exceedance. **The drinking water at Camp Shields is fit for human consumption**

Possible Source of Contaminants

As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals. It can also pick up other contaminants resulting from the presence of animals or human activities. Drinking water, including bottled water, may reasonably be expected to contain trace 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 (EPA) Safe Drinking Water Hotline at 1-800-426-4791 or visiting the EPA website at http://water.epa.gov/drink/index.cfm

Potential Contaminants

Lead

Elevated levels of lead can cause adverse health effects, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. When the 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 the water for drinking or cooking. Information on lead in drinking water is available at http://water.epa.gov/drink/info/lead/index.cfm

Nitrate/Nitrite

Nitrates are naturally present in soil, water, and food. They are used primarily to make fertilizer. Nitrates themselves are relatively nontoxic. However, when swallowed, they are converted to nitrites that can react with hemoglobin in the blood, creating methemoglobin. This methemoglobin cannot transport oxygen, causing shortness of breath and blue baby syndrome. Information on Nitrate in drinking water is available at http://water.epa.gov/drink/contaminants/basicinformation/nitrate.cfm

Arsenic

Arsenic is odorless and tasteless. It enters drinking water supplies from natural deposits in the earth or from agricultural and industrial practices. People who over a period of many years drink water contaminated with arsenic in excess of the drinking water standards could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. Information on Arsenic in drinking water is available at http://water.epa.gov/drink/contaminants/basicinformation/arsenic.cfm

Drinking Water Monitoring

We use Japanese and EPA approved laboratory methods to analyze our drinking water. We monitor our drinking water for the following contaminants at frequencies prescribed by the JEGS and the NPDWR.

Contaminants	Frequency
pH and Chlorine Residual	Daily
Total Coliform	Monthly
Disinfection Byproduct (Bromate) and Organic Chemical (Dichloromethane)	Quarterly
Lead, Copper, Inorganic Chemicals (e.g. Nitrate/Nitrite & Arsenic), and other Organic Chemicals and Disinfection Byproducts (Total Trihalo-methanes & Haloacetic Acids 5)	Annually
PCBs, Herbicides and Pesticides	Once every 3 years
Radionuclides	Once every 4 years
Asbestos	Once every 9 years

The table on page 3 lists the results of the analysis performed in 2013. Only those contaminants detected are listed in the table.

Additional Sources of Information

USEPA:
http://water.epa.gov/drink/index.cfm or the Safe Drinking Water Hotline (1-800-426-4791).

Centers for Disease Control:
http://www.cdc.gov/healthywater/drinking/

Kadena Air Force 2013 CCR:
http://www.kadena.af.mil/library/communitynotes.asp

The Okinawa Prefectural Enterprise Bureau provides water monitoring results for the Water Treatment Plants (Only in Japanese):

http://www.eb.pref.okinawa.jp/water_info/water_quality_info/result/search.html

Frequently Asked Questions

My water doesn't taste, smell or look good. What's wrong with it?
Even when water meets standards, it still may have an objectionable taste, smell or appearance. These are aesthetic characteristics that do not pose health risks. Cloudiness is typically caused by air bubbles. A chlorine taste can be improved by letting the water stand exposed to air. Rusty colored water and metallic tastes are due to iron in the water. They are not a health risk and can be improved by running the tap until the water color clears. If you wish to improve the taste, smell or appearance of your water, you can also install a home water filter. Please keep in mind that the filters require regular maintenance and replacement.

Will using a home water filter make the water safer or healthier?
Most filters improve the taste, smell and appearance of water, but they do not necessarily make the water safer or healthier. Please keep in mind that filters require regular maintenance and replacement. If maintenance of water filters is ignored, then water quality problems may occur.

What is a precautionary Boil Water Advisory?
If a problem is detected in the distribution system such as a drop in water pressure or a break in main water line, PWD puts out a precautionary Boil Water Advisory. It advises that the water must be boiled to kill bacteria potentially present in the water before consumption. After the problem is resolved and water quality verified, PWD lifts the advisory.

CAMP SHIELDS – DRINKING WATER CONTAMINANTS DETECTED IN 2013

Contaminants	Unit of Measurement	Detected Level		Standard (AL*/ MCL/ MRDL**)	Violation	Possible Source of Contamination
		High	Low		Yes / No	
INORGANIC CONTAMINANTS						
Barium	mg/L	**0.0077**	-	2.0	No	Erosion of natural deposits
Nitrate (as Nitrogen)	mg/L	**0.46**	-	10	No	Erosion of natural deposits
Sodium	mg/L	**32**	-	200	No	Erosion of natural deposits
Lead	mg/L	**0.060** [2]	-	0.015 [1]	Yes [2]	Corrosion of plumbing systems Erosion of natural deposits
Copper	mg/L	**0.368**	-	1.3 [1]	No	Corrosion of plumbing systems Erosion of natural deposits
ORGANIC CONTAMINANT						
Dichloromethane	mg/L	**0.00053**	-	0.005	No	Discharge from drug and chemical factories
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine	mg/L	**0.50**	**0.05**	4.0 [3]	No	Disinfectant
Total Trihalomethanes	mg/L	**0.057**	-	0.08	No	By-product of chlorination
Halo Acetic Acids (HAA5)	mg/L	**0.007**	-	0.06	No	By-product chlorination

Abbreviations and Definitions:

AL (Action Level): The concentration of a contaminant in water that establishes the appropriate treatment for a water system.
MCL (Maximum Contaminant Level): The highest level of a contaminant allowed in drinking water.
MRDL (Maximum Residual Disinfectant Level): The level of a disinfectant added for water treatment measured at the consumer's tap, which may not be exceeded without the unacceptable possibility of adverse health effects.
mg/L: milligrams per liter.

Notes:
[1] Lead and Copper - Action Level.
[2] The detected level shown is for Bldg. 8215. The violation has been corrected by replacing building plumbing.
[3] Residual Chlorine - Maximum Residual Disinfectant Level.

CFAO monitors for many contaminants and only those detected by laboratory analysis or at sampling locations are listed above.

For more information on this report or water quality at Awase Transmitter Site and Tengan Pier, please contact Tomoe Wakida, NAVFAC FE PWD Okinawa Environmental Division at 622-1378 or Tomoe.Wakida.JA@fe.navy.mil .