

# Consumer Confidence Report

## Drinking Water Systems 2016

### Commander Fleet Activities Sasebo

Issued in accordance with OPNAVINST 5090.1D and OPNAV M-5090.1, implemented in January 2014.  
This report reflects monitoring data collected in 2016 and will be updated annually.

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The Navy is pleased to provide you with this annual Consumer Confidence Report (CCR) of Drinking Water Systems that support Sasebo Main Base, Maebata, Harioshima, Hario Housing, Akasaki, Iorizaki, and Yokose. This report provides information about the water delivered to Commander Fleet Activities Sasebo (CFAS) in 2016. It describes where our water comes from, what it contains, and how it compares to standards for safe drinking water. The drinking water at Sasebo is safe to drink. Our goal is, and always has been, to provide safe and dependable drinking water.

#### Source of Water

Our potable drinking water is purchased from two sources. The Sasebo City Waterworks Bureau provides water to the Main Base, Maebata, Hario Housing, Akasaki and Iorizaki areas. The Saikai City Waterworks Bureau provides potable drinking water to Yokose. These waterworks filter and chlorinate the drinking water provided to us. Both waterworks obtain their water from one or more of the following surface water sources: Yamanota water treatment plant, Hirota water treatment plant and Saikai-shi Chubu water treatment plant.

Harioshima ordnance area continues to receive hauled, containerized water to three holding tanks adjacent to facilities using the water. The water truck filling point which is located on CFAS Main Base is monitored for all primary and secondary drinking water contaminants on a regular basis and these results are shown on Table II including its facility results for residual chlorine, lead and copper.

#### Water Distribution Systems

NAVFAC Public Works Department (PWD) at CFAS operates the water distribution system servicing your area. The distribution system comprised of pipes, valves and pumps which maintain a minimum positive water pressure of 20 pounds per square inch (psi) at all times. The Sasebo and Saikai City Waterworks Bureaus do not fluorinate their water supplies.

#### Water Quality

This year, as in years past, our drinking water met all criteria established in the Japan Environmental Governing Standards (JEGS) 2016, Commander, Navy Installations Command Instruction 5090.1, and applicable parts of the National Primary Drinking Water regulations promulgated under the Safe Drinking Water Act of 1974. The JEGS 2016 intent is to ensure DoD activities and installations in Japan protect human health and the natural environment through the promulgation of specific environmental

compliance criteria. Our drinking water standards are derived from the same standards used in the U.S. to ensure safe drinking water is available to all installation personnel. They require us to monitor and test our water for contaminants on a regular basis, ensuring it is safe to drink.

## 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 activity. 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. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those 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. Contaminants that may be present in source water include;

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water run-off, industrial or domestic wastewater discharge, oil and gas production, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- 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.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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 <https://www.epa.gov/ground-water-and-drinking-water/table-regulated-drinking-water-contaminants>.

## Lead

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. CFAS lead samplings during our annual monitoring did NOT exceed the lead drinking water health standards requirements set forth in the JEGS 2016. When your water has been sitting for several hours, you can further 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 <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>

## Drinking Water Monitoring

We use Japanese and EPA approved laboratory methods to analyze our drinking water. CFA Sasebo monitors its drinking water for the following constituents. The EPA and JEGS allow us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

Constituent	Frequency
pH, Conductivity, Turbidity, Chlorine Residue, Water Temperature, and Water Pressure	Real Time Monitoring
Turbidity	Daily
Total Coliform	Monthly
Disinfection byproducts (Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5)); Nitrates	Annually & Quarterly
Lead, Copper, Inorganic Chemicals, and Organic Chemicals	Annually & every 3 years
PCBs, Herbicides, and Pesticides	Once every 3 years
Radionuclides	Once every 4 years
Asbestos	Once every 9 years

The following tables list constituents detected during the latest round of required sampling. Only those contaminants detected are listed. The presence of contaminants does not necessarily indicate that the water poses a health risk. None of the samples exceeded the JEGS 2016 and other applicable drinking water health standards. As such, **Sasebo's drinking water is safe and fit for human consumption.** Most lead and copper, and all organic chemicals testing were conducted in 2015, and are monitored every three years. The levels of these contaminants are not expected to vary significantly from year to year. The water samples were collected from multiple locations. For example, for Total Coliform, we monitored 22 locations a month throughout CFA Sasebo with twelve sample locations at Sasebo Main Base. The collected samples are analyzed individually.

## Priority Areas Sampling

In an effort to reduce children's potential exposure to lead, this year we concluded an extensive lead sampling project in priority areas. Corrective actions were taken on all taps which exceeded an action level set forth in the CNIC memorandum 5090 N45/14U132588. Priority areas included all Department of Defense Schools, Child Development Centers and Youth Centers at CFA Sasebo installations. Water samples were collected from approximately 476 kitchen, classrooms, and bathroom faucets, bubblers, refrigerated water coolers, and exterior water faucets with 8 locations (CY2016) at Sasebo Main Base exceeding 20 parts per billion (ppb) screening level. Following corrective actions to include replacement of fixtures and re-testing, an additional five drinking water fixtures were made available for use while three were taken off-line.

## Frequently Asked Questions

**Does the annual consumer confidence report indicate there is something wrong with the water, or that it's unsafe?**

Each U.S. Navy overseas installation is required by CNIC policy letter to provide its customers with a water quality report also known as a Consumer Confidence Report (CCR). The CCR is a general overall overview of the water quality delivered by your community water system. This report lists the regulated

contaminants the community water system detected in the treated water and the level at which they were found for the preceding calendar year.

### **Why does the water sometimes look rusty?**

Rusty or reddish tinted water may occur when a sudden change in pressure in the water distribution system causes rust in the distribution pipes to become dislodged. Iron causes the discoloration; it is not a health risk. If water looks rusty, flush your tap for three minutes or until clear before using water. Running the water will clear the piping system. If hot tap water is rusty, the water heater may need to be flushed.

### **I don't like the taste/smell/appearance of my tap water. What's wrong with it?**

Even when water meets standards, you may still object to its taste, smell or appearance. Taste, smell and appearance are aesthetic characteristics and do not pose health risks. Common complaints about water aesthetics include temporary cloudiness (typically caused by air bubbles) or chlorine taste (which can be improved by letting the water stand exposed to the air). If you want to improve the taste, smell and appearance of your water, you can install a home water filter. Please keep in mind that filters require regular maintenance and replacement, and if ignored, water taste, smell, or appearance issues may reoccur.

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### **Installation Water Quality Board**

The Installation Commanding Officer has established an Installation Water Quality Board (IWQB) tasked with ensuring there is a reliable supply of drinking water for all persons using CFA, Sasebo facilities.

#### **Installation Water Quality Board**

Commander.....	252-3456
Chief Staff Officer.....	252-3444
Public Works Officer.....	252-3452
U.S. Naval Clinic.....	252-2586
Public Affairs Officer.....	252-3029
Public Works Production Officer.....	252-2210
Public Works Environmental Director.....	252-3369

**For questions regarding Priority Area Sampling please contact CFA Sasebo Public Affairs Officer.**

**For questions on drinking water in general please contact: CFA Sasebo Public Works Department Environmental at 252-3723.**

**TABLE I**

**SASEBO MAIN BASE – DRINKING WATER CONSTITUENTS DETECTED IN 2016**

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/MDRL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
<b>INORGANIC CONTAMINANTS</b>						
Barium	mg/L	0.12	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	0.7	0.6	10	No	Erosion of natural deposits.
Sodium	mg/L	11	-	200	No	Erosion of natural deposits.
<b>DISINFECTANTS &amp; DISINFECTION BYPRODUCTS</b>						
Residual Chlorine	mg/L	0.95	0.21	4.0*	No	Disinfectant
Total Trihalomethanes	mg/L	0.026	0.014	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids	mg/L	0.016	0.005	0.060	No	By-product of drinking water chlorination.

Contaminants	# samples exceeding AL	90 <sup>th</sup> %	AL (mg/L)	Violation	Possible Sources of Contamination
Copper	0	0.185	1.300	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Lead	0	0.002	0.015	No	Corrosion of household plumbing systems. Erosion of natural deposits.

**Notes:**

\* Residual Chlorine - Maximum Residual Disinfectant Level.

CFA Sasebo monitors for many contaminants, only those detected during laboratory analysis are listed above.

**Abbreviations and Definitions:**

**AL:** Action Level. The concentration of a contaminant in water that establishes the appropriate treatment for a water system. AL is based on a 90th percentile value.

**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.

**mg/L:** milligrams per Liter.

**ND:** Not Detected.

**TABLE II**

**HARIOSHIMA ORDNANCE – DRINKING WATER CONSTITUENTS DETECTED IN 2016**

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/MDRL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
<b>INORGANIC CONTAMINANTS</b>						
Barium	mg/L	0.12	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	0.7	0.6	10	No	Erosion of natural deposits.
Sodium	mg/L	11	-	200	No	Erosion of natural deposits.
<b>DISINFECTANTS &amp; DISINFECTION BYPRODUCTS</b>						
Residual Chlorine	mg/L	0.61	0.05	4.0*	No	Disinfectant

Contaminants	# samples exceeding AL	90 <sup>th</sup> %	AL (mg/L)	Violation	Possible Sources of Contamination
Copper	0	0.063	1.300	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Lead	0	0.002	0.015	No	Corrosion of household plumbing systems. Erosion of natural deposits.

**Notes:**

\* Residual Chlorine - Maximum Residual Disinfectant Level.

CFA Sasebo monitors for many contaminants, only those detected during laboratory analysis are listed above.

**Abbreviations and Definitions:**

**AL:** Action Level. The concentration of a contaminant in water that establishes the appropriate treatment for a water system. AL is based on a 90th percentile value.

**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.

**mg/L:** milligrams per Liter.

**ND:** Not Detected.

**TABLE III**

**MAEBATA NMC ORDNANCE – DRINKING WATER CONSTITUENTS DETECTED IN 2016**

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/MDRL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
<b>INORGANIC CONTAMINANTS</b>						
Barium	mg/L	0.014	-	2.0	No	Erosion of natural deposits.
Fluoride	mg/L	0.063	-	4	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	0.7	0.2	10	No	Erosion of natural deposits.
Sodium	mg/L	12	-	200	No	Erosion of natural deposits.
<b>DISINFECTANTS &amp; DISINFECTION BYPRODUCTS</b>						
Residual Chlorine	mg/L	0.79	0.49	4.0*	No	Disinfectant
Total Trihalomethanes	mg/L	0.041	0.037	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids	mg/L	0.017	0.016	0.060	No	By-product of drinking water chlorination.

Contaminants	# samples exceeding AL	90 <sup>th</sup> %	AL (mg/L)	Violation	Possible Sources of Contamination
Copper	0	0.030	1.300	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Lead	0	.001	0.015	No	Corrosion of household plumbing systems. Erosion of natural deposits.

**Notes:**

\* Residual Chlorine - Maximum Residual Disinfectant Level.

CFA Sasebo monitors for many contaminants, only those detected during laboratory analysis are listed above.

**Abbreviations and Definitions:**

**AL:** Action Level. The concentration of a contaminant in water that establishes the appropriate treatment for a water system. AL is based on a 90th percentile value.

**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.

**mg/L:** milligrams per Liter.

**ND:** Not Detected

**TABLE IV**

**HARIO HOUSING – DRINKING WATER CONSTITUENTS DETECTED IN 2016**

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/MDRL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
<b>INORGANIC CONTAMINANTS</b>						
Barium	mg/L	0.014	-	2.0	No	Erosion of natural deposits.
Fluoride	mg/L	.063	-	4	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	0.7	0.2	10	No	Erosion of natural deposits.
Sodium	mg/L	12	-	200	No	Erosion of natural deposits.
<b>DISINFECTANTS &amp; DISINFECTION BYPRODUCTS</b>						
Residual Chlorine	mg/L	0.62	0.08	4.0*	No	Disinfectant
Total Trihalomethanes	mg/L	0.044	0.010	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids	mg/L	0.021	0.010	0.060	No	By-product of drinking water chlorination.

Contaminants	# samples exceeding AL	90 <sup>th</sup> %	AL (mg/L)	Violation	Possible Sources of Contamination
Copper	0	0.020	1.300	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Lead	0	0.003	0.015	No	Corrosion of household plumbing systems. Erosion of natural deposits.

**Notes:**

\* Residual Chlorine - Maximum Residual Disinfectant Level.

CFA Sasebo monitors for many contaminants, only those detected during laboratory analysis are listed above.

**Abbreviations and Definitions:**

**AL:** Action Level. The concentration of a contaminant in water that establishes the appropriate treatment for a water system. AL is based on a 90th percentile value.

**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.

**mg/L:** milligrams per Liter.

**ND:** Not Detected



**TABLE V**

**AKASAKI FUEL TERMINAL – DRINKING WATER CONSTITUENTS DETECTED IN 2016**

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/MDRL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
<b>INORGANIC CONTAMINANTS</b>						
Barium	mg/L	0.012	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	0.7	0.6	10	No	Erosion of natural deposits.
Sodium	mg/L	11	-	200	No	Erosion of natural deposits.
<b>DISINFECTANTS &amp; DISINFECTION BYPRODUCTS</b>						
Residual Chlorine	mg/L	0.80	0.46	4.0*	No	Disinfectant
Total Trihalomethanes	mg/L	0.050	0.032	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids	mg/L	0.014	0.013	0.060	No	By-product of drinking water chlorination.

Contaminants	# samples exceeding AL	90 <sup>th</sup> %	AL (mg/L)	Violation	Possible Sources of Contamination
Copper	0	0.010	1.300	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Lead	0	0.001	0.015	No	Corrosion of household plumbing systems. Erosion of natural deposits.

**Notes:**

\* Residual Chlorine - Maximum Residual Disinfectant Level.

CFA Sasebo monitors for many contaminants, only those detected during laboratory analysis are listed above.

**Abbreviations and Definitions:**

**AL:** Action Level. The concentration of a contaminant in water that establishes the appropriate treatment for a water system. AL is based on a 90th percentile value.

**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.

**mg/L:** milligrams per Liter.

**ND:** Not Detected

**TABLE VI**

**IORIZAKI FUEL TERMINAL – DRINKING WATER CONSTITUENTS DETECTED IN 2016**

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/MDRL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
<b>INORGANIC CONTAMINANTS</b>						
Barium	mg/L	0.012	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	0.7	0.6	10	No	Erosion of natural deposits.
Sodium	mg/L	11	-	200	No	Erosion of natural deposits.
<b>DISINFECTANTS &amp; DISINFECTION BYPRODUCTS</b>						
Residual Chlorine	mg/L	0.44	0.30	4.0*	No	Disinfectant
Total Trihalomethanes	mg/L	0.032	0.031	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids	mg/L	0.011	0.010	0.060	No	By-product of drinking water chlorination.

Contaminants	# samples exceeding AL	90 <sup>th</sup> %	AL (mg/L)	Violation	Possible Sources of Contamination
Copper	0	0.030	1.300	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Lead	0	0.002	0.015	No	Corrosion of household plumbing systems. Erosion of natural deposits.

**Notes:**

\* Residual Chlorine - Maximum Residual Disinfectant Level.

CFA Sasebo monitors for many contaminants, only those detected during laboratory analysis are listed above.

**Abbreviations and Definitions:**

**AL:** Action Level. The concentration of a contaminant in water that establishes the appropriate treatment for a water system. AL is based on a 90th percentile value.

**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.

**mg/L:** milligrams per Liter.

**ND:** Not Detected

**TABLE VII**

**YOKOSE FUEL TERMINAL – DRINKING WATER CONSTITUENTS DETECTED IN 2016**

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/MDRL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
<b>INORGANIC CONTAMINANTS</b>						
Barium	mg/L	0.011	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	1.2	0.9	10	No	Erosion of natural deposits.
Sodium	mg/L	11	-	200	No	Erosion of natural deposits.
<b>DISINFECTANTS &amp; DISINFECTION BYPRODUCTS</b>						
Residual Chlorine	mg/L	0.59	0.10	4.0*	No	Disinfectant
Total Trihalomethanes	mg/L	0.030	0.023	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids	mg/L	0.009	0.004	0.060	No	By-product of drinking water chlorination.

Contaminants	# samples exceeding AL	90 <sup>th</sup> %	AL (mg/L)	Violation	Possible Sources of Contamination
Copper	0	0.050	1.300	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Lead	0	0.001	0.015	No	Corrosion of household plumbing systems. Erosion of natural deposits.

**Notes:**

\* Residual Chlorine - Maximum Residual Disinfectant Level.

CFA Sasebo monitors for many contaminants, only those detected during laboratory analysis are listed above.

**Abbreviations and Definitions:**

**AL:** Action Level. The concentration of a contaminant in water that establishes the appropriate treatment for a water system. AL is based on a 90th percentile value.

**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.

**mg/L:** milligrams per Liter.

**ND:** Not Detected

## **IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

### **Drinking Water Monitoring**

During the November 2015 triennial Overseas Drinking Water (ODW) audit, the audit team noted that a Lead and Copper Rule exceedance collected in 2013 Maebata Ordnance was not included in the 2013 Consumer Confidence Report. This revision provides the sampling result and corrects the error.

One sample collected 29 July 2013 from a temporary office used during a construction project adjacent to Bldg 714, Fire Station, exceeded the lead action level (AL). The sample detected a lead concentration of 0.027 mg/L which exceeded the 0.015 mg/l AL. The location was re-sampled the following month on 22 August 2013, and the results were below the AL (result was 0.0013 mg/l). In addition, all subsequent samples for Maebata in 2014 and 2015 have been Non-Detect and/or below the AL for lead and all other contaminants. The temporary office used during construction project is no longer present.

Should you have concerns, please contact the CFAS Public Affairs Office 252-3029.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly.

\*Reference: Navy Water Quality Oversight Council Sanitary Survey Final report February 2016