

Consumer Confidence Report

Drinking Water Systems 2019

Commander Fleet Activities Sasebo

Issued in accordance with OPNAVINST 5090.1D and OPNAV M-5090.1, implemented in January 2014.
This report is updated annually and reflects monitoring data collected in 2019.

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 calendar year 2019. 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 drinking water to the Main Base, Maebata, Hario Housing, Akasaki and Iorizaki areas. The Saikai City Waterworks Bureau provides 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 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.

Water Distribution Systems

NAVFAC Public Works Department (PWD) at CFAS operates the water distribution system servicing your area. The distribution system is 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 City and Saikai City waterworks bureaus do not fluorinate their water supplies. NAVFAC Public Works Department (PWD) supplements chlorination to the water provided by the city waterworks at the Yokose site.

Water Quality

This year, as in years past, our drinking water met all criteria established in the Japan Environmental Governing Standards (JEGS) 2018, Commander, Navy Installations Command Instruction 5090.1A, and applicable parts of the National Primary Drinking Water regulations promulgated under the Safe Drinking Water Act of 1974. The JEGS 2018 intent is to ensure Department of Defense (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 sampling results met the lead drinking water requirements set forth in the JEGS 2018 and the EPA Lead and Copper Rule.** 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. 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. Frequencies of constituents we sample are provided below.

Constituent	Frequency
pH, Turbidity, Chlorine Residual	Daily
Total Coliform	Monthly
Nitrates and Nitrites	Quarterly
Disinfection Byproducts (DBPRs) ¹	Quarterly and Annually ²
Inorganic Chemicals	Annually
Volatile Organic Compounds (VOCs)	Every 3 years
PCBs, Herbicides, and Pesticides	Every 3 years
Lead and Copper	Every 3 years ³
Radionuclides	Every 3 years
Asbestos	Every 9 years

¹ Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5)

² Main Base and Hario Housing DBPRs are monitored quarterly, other sites annually. Harioshima hauled water is monitored at Main Base. Annual sampling of DBPRs is performed in August when it is warmer.

³ Harioshima Ordnance and Maebata Ordnance were approved for reduced monitoring to every three years in 2019 for lead and copper. Other sites are already on every three year monitoring.

The tables at the end of this report list constituents detected during sampling in 2019. The water samples in the tables were collected from multiple locations. For example, for Total Coliform, we monitor 22 locations each month throughout CFA Sasebo including twelve locations at Sasebo Main Base. Lead and copper and volatile organic compounds (organic chemicals) were sampled in 2018; these are monitored every three years and their levels are not expected to vary significantly from year to year. The collected samples are analyzed individually. 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 2018 and other applicable drinking water health standards. As such, **Sasebo's drinking water is safe and fit for human consumption.**

Lead in Priority Areas Sampling (LIPA, screening for Lead at tap sources)

CFA Sasebo samples all drinking water faucets at Priority Areas for lead every five years in an effort to reduce children's potential exposure (CNIC Interim Guidance for Sampling and Testing for Lead in Drinking Water in Priority Areas, June 2017). Priority areas include DoD schools, child development centers, and youth centers at the CFA Sasebo installation. The Navy LIPA screening level was lowered to 15 parts per billion (ppb) lead from the 20 ppb applied in the first round of sampling (2014) as a result of guidance updates (Mar 2019 OPNAV45). Sampling was performed in June and July 2019 at over 430 faucets in eight facilities, and results were received 28 AUG 2019. Thirty faucets initially exceeded the screening level, and the faucets were taken out of service pending further analysis and corrective action. Seventeen faucets were subsequently cleared with aerator maintenance. Thirteen faucets were replaced as a corrective action, and the new faucets were cleared 01 MAY 2020 by lead testing with results below the screening level. Notification and results summaries were provided to parents and caregivers after initial sampling and after corrective actions. The notifications are available at https://www.cnic.navy.mil/regions/cnrj/installations/cfa_sasebo/om/public_works/.html.

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 to provide its customers with a water quality report known as a Consumer Confidence Report (CCR). The CCR is an 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. Any exceedances of applicable regulations or guidance will be reported.

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.

Installation Water Quality Board

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

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

TABLE I

SASEBO MAIN BASE – DRINKING WATER CONSTITUENTS DETECTED IN 2019

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/ MRDL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
INORGANIC CONTAMINANTS						
Barium	mg/L	0.0056	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	1.2	0.7	10	No	Runoff from fertilizer and erosion of natural deposits.
Sodium	mg/L	6.6	-	200	No	Erosion of natural deposits.
Fluoride	mg/L	1.3	-	4.0	No	Water additive and erosion of natural deposits.
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine	mg/L	0.88	0.20	4.0*	No	Disinfectant added for water treatment.
Total Trihalomethanes**	mg/L	0.0205	0.0019	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids**	mg/L	0.0122	0.0026	0.060	No	By-product of drinking water chlorination.

Notes:

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

* Residual Chlorine - Maximum Residual Disinfectant Level allowed in drinking water.

** High and low values are reported. System compliance is based on a running annual average of quarterly values compared to the listed MCL (computed quarterly). Quarterly running averages did not exceed the MCL.

Abbreviations and Definitions:

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.

- : dash is one sample per water source based on sampling plan; no separate High and Low values.

TABLE II

HARIO HOUSING – DRINKING WATER CONSTITUENTS DETECTED IN 2019

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/MRDL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
INORGANIC CONTAMINANTS						
Barium	mg/L	0.014	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	0.8	0.3	10	No	Runoff from fertilizer and erosion of natural deposits.
Sodium	mg/L	8.2	-	200	No	Erosion of natural deposits.
Fluoride	mg/L	1.4	-	4.0	No	Water additive and erosion of natural deposits.
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine	mg/L	0.84	< 0.05*	4.0**	No	Disinfectant added for water treatment.
Total Trihalomethanes***	mg/L	0.0372	0.0188	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids***	mg/L	0.0312	0.0127	0.060	No	By-product of drinking water chlorination.
Radionuclides						
Gross Beta	mrem/yr	1.92	-	4	No	Decay of natural and man-made deposits.

Notes:

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

* Operations and maintenance practices require maintaining a disinfectant residual throughout the distribution system. The Hario Housing reported a value of less than the detection limit for residual chlorine during the June monthly test at the Hario Housing Medical Center Building 5139. A flushing program was instituted at the Medical Center during the summer months when residual chlorine is most likely to dissipate. Residual chlorine was detected during all the other months.

** Residual Chlorine - Maximum Residual Disinfectant Level.

*** High and low values are reported. System compliance is based on a running annual average of quarterly values compared to the listed MCL (computed quarterly). Quarterly running averages did not exceed the MCL.

Abbreviations and Definitions:

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.

mrem/yr: millirem per year.

- : dash is one sample per water source based on sampling plan; no separate High and Low values.

TABLE III

AKASAKI FUEL TERMINAL – DRINKING WATER CONSTITUENTS DETECTED IN 2019

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/ MRDL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
INORGANIC CONTAMINANTS						
Barium	mg/L	0.0056	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	1.2	0.7	10	No	Runoff from fertilizer and erosion of natural deposits.
Sodium	mg/L	6.6	-	200	No	Erosion of natural deposits.
Fluoride	mg/L	1.3	-	4.0	No	Water additive and erosion of natural deposits.
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine	mg/L	0.73	0.52	4.0*	No	Disinfectant added for water treatment.
Total Trihalomethanes	mg/L	0.0209	-	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids	mg/L	0.0122	-	0.060	No	By-product of drinking water chlorination.
Radionuclides						
Combined Radium 226/228	pCi/L	1.17	-	5.0	No	Erosion of natural deposits.

Notes:

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

* Residual Chlorine - Maximum Residual Disinfectant Level.

Abbreviations and Definitions:

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.

pCi/L: picoCuries per Liter.

- : dash is one sample per water source based on sampling plan; no separate High and Low values.

TABLE IV

HARIOSHIMA ORDNANCE – DRINKING WATER CONSTITUENTS DETECTED IN 2019

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/ MRDL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
INORGANIC CONTAMINANTS						
Barium	mg/L	0.0056	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	1.2	0.7	10	No	Runoff from fertilizer and erosion of natural deposits.
Sodium	mg/L	6.6	-	200	No	Erosion of natural deposits.
Fluoride	mg/L	1.3	-	4.0	No	Water additive and erosion of natural deposits.
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine	mg/L	0.71	< 0.05*	4.0**	No	Disinfectant added for water treatment.
Radionuclides						
Radium 226/228, Combined	pCi/L	1.14	-	5.0	No	Erosion of natural deposits.
Contaminants	# Samples Exceeding AL	90 th %		AL (mg/L)	Violation	Possible Sources of Contamination
Copper	0	0.0765		1.300	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Lead	0	0.00582		0.015	No	Corrosion of household plumbing systems. Erosion of natural deposits.

Notes:

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

* Operations and maintenance practices require maintaining a disinfectant residual throughout the distribution system. Harioshima reported values of less than the detection limit for residual chlorine during the May and July monthly tests at the at the Maintenance Building 3064 sampling station. Residual chlorine was detected during all the other months at the Maintenance Building 3064, and during all months at the other two Harioshima testing stations.

** Residual Chlorine - Maximum Residual Disinfectant Level allowed in drinking water.

Abbreviations and Definitions:

AL: Action Level. The concentration 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. **pCi/L:** picoCuries per Liter.

- : dash is one sample per water source based on sampling plan; no separate High and Low values.

Harioshima Ordnance 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. These results are shown on Table IV including its facility results for residual chlorine, lead and copper and total coliform which are measured at the site.

TABLE V

IORIZAKI FUEL TERMINAL – DRINKING WATER CONSTITUENTS DETECTED IN 2019

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/ MRDL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
INORGANIC CONTAMINANTS						
Barium	mg/L	0.0056	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	1.2	0.7	10	No	Runoff from fertilizer and erosion of natural deposits.
Sodium	mg/L	6.6	-	200	No	Erosion of natural deposits.
Fluoride	mg/L	1.3	-	4.0	No	Water additive and erosion of natural deposits.
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine	mg/L	0.48	0.24	4.0*	No	Disinfectant added for water treatment.
Total Trihalomethanes	mg/L	0.0233	0.0218	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids	mg/L	0.0096	0.0093	0.060	No	By-product of drinking water chlorination.

Contaminants	# Samples Exceeding AL	90 th %	AL (mg/L)	Violation	Possible Sources of Contamination
Copper	0	0.027	1.300	No	Corrosion of household plumbing systems. Erosion of natural deposits.
Lead	0	0.0031	0.015	No	Corrosion of household plumbing systems. Erosion of natural deposits.

Notes:

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

* Residual Chlorine - Maximum Residual Disinfectant Level.

Abbreviations and Definitions:

AL: Action Level. The concentration 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.

- : dash is one sample per water source based on sampling plan; no separate High and Low values.

TABLE VI

MAEBATA NMC ORDNANCE – DRINKING WATER CONSTITUENTS DETECTED IN 2019

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/ MRDL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
INORGANIC CONTAMINANTS						
Barium	mg/L	0.014	-	2.0	No	Erosion of natural deposits.
Nitrate (as Nitrogen)	mg/L	0.8	0.3	10	No	Runoff from fertilizer and erosion of natural deposits.
Sodium	mg/L	8.2	-	200	No	Erosion of natural deposits.
Fluoride	mg/L	1.4	-	4.0	No	Water additive and erosion of natural deposits.
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine	mg/L	1.10	0.58	4.0*	No	Disinfectant added for water treatment.
Total Trihalomethanes	mg/L	0.0362	0.0357	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids	mg/L	0.0221	0.0218	0.060	No	By-product of drinking water chlorination.
Radionuclides						
Gross Beta	mrem/yr	1.65	-	4	No	Decay of natural and man-made deposits.

Notes:

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

* Residual Chlorine - Maximum Residual Disinfectant Level.

Abbreviations and Definitions:

AL: Action Level. The concentration 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.

mrem/yr: millirem per year.

- : dash is one sample per water source based on sampling plan; no separate High and Low values.

TABLE VII

YOKOSE FUEL TERMINAL – DRINKING WATER CONSTITUENTS DETECTED IN 2019

Contaminant	Unit of Measurement	Detected Level		Standard (MCL/ MRDL)	Violation?	Possible Sources of Contamination
		High	Low		Yes / No	
INORGANIC CONTAMINANTS						
Barium	mg/L	0.012	-	2.0	No	Erosion of natural deposits.
Chromium	mg/L	0.00055	-	0.1	No	Erosion of natural deposits and discharge from steel.
Nitrate (as Nitrogen)	mg/L	1.2	1.1	10	No	Runoff from fertilizer and erosion of natural deposits.
Sodium	mg/L	10.1	-	200	No	Erosion of natural deposits.
Fluoride	mg/L	2.7	-	4.0	No	Water additive and erosion of natural deposits.
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine	mg/L	0.68	0.19	4.0*	No	Disinfectant added for water treatment.
Total Trihalomethanes	mg/L	0.0331	0.0242	0.080	No	By-product of drinking water chlorination.
Halo Acetic Acids	mg/L	0.0093	0.0092	0.060	No	By-product of drinking water chlorination.

Notes:

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

* Residual Chlorine - Maximum Residual Disinfectant Level.

Abbreviations and Definitions:

AL: Action Level. The concentration 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.

- : dash is one sample per water source based on sampling plan; no separate High and Low values.