

# Consumer Confidence Report

## Marine Corps Air Station Iwakuni

### Main Base, Atago & Monzen Drinking Water System



**This report reflects monitoring data collected in 2019 and will be updated annually.**

Marine Corps Air Station (MCAS) Iwakuni is pleased to provide you with this annual Consumer Confidence Report (CCR) for the Drinking Water System which supports MCAS Iwakuni, Japan. This report provides information about the water delivered to MCAS in 2019. It describes where your water comes from, what it contains, and how it compares to standards for safe drinking water.

Our goal is to provide safe and dependable drinking water. During 2019, drinking water at MCAS Iwakuni met all Japan Environmental Governing Standards (JEGS) drinking water health standards.

#### Source of Water

The source of the drinking water at MCAS Iwakuni is the Nishiki River. The raw water is treated at the Nishimi Water Purification Plant, run by the Iwakuni City Waterworks, and then conveyed via pipelines to MCAS Iwakuni. The plant employs full conventional water treatment including chemical coagulation, flocculation, sedimentation, filtration, and disinfection (chlorination). The Nishimi Water Purification Plant provides MCAS Iwakuni data on the raw water processed by the plant, as well as the finished water it sends to the installation for human consumption. Pump stations on the North, South, Monzen, and Atago distribute the water throughout the MCAS Iwakuni distribution system.

#### Drinking Water Standards

Our drinking water is required to meet the water quality standards established in the Japan Environmental Governing Standards (JEGS). 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 and their families.



Nishiki River

To continually ensure that our water is safe to drink, the JEGS require us to regularly monitor and test our water for contaminants. MCAS Iwakuni vigilantly safeguards its water supplies and we are proud to report that our system did not violate any JEGS maximum contaminant levels (MCLs) in 2019.

#### Possible Source of Contaminants

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 (800-426-4791), or visiting the EPA website at <https://www.epa.gov/dwstandardsregulations>.

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.

## Potential Contaminants in Drinking Water

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.



Coliform bacteria

- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water 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 storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring, or be the result of oil and gas production and mining activities.

## Other Potential Contaminants (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. MCAS Iwakuni 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 the water for drinking or cooking. If you are concerned about lead in your water Information on lead in drinking water, and steps you can take to minimize exposure is available at <https://www.epa.gov/safewater/lead>.



Lead solder can be a source of lead in drinking water

## Special Health Considerations

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. Environmental Protection Agency (EPA)/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

## Maintaining Your Water Quality At Home

The Facilities Department performs maintenance, disinfection on water infrastructure, and oversees sampling and analysis through contracted sampling, but there are things you can do to maintain the water quality at your home. The plumbing and fixtures that distribute water throughout your house can sometimes contribute to water quality issues, particularly aesthetic ones, such as discoloration, taste and odor.

**The following are some ways that residents can improve the quality of their water:**



**Flush cold-water faucets before using for cooking, drinking, or making baby formula.**

If a faucet has not been used for several hours or longer, run the water for 30 seconds to 2 minutes (or until the water feels cooler) before using the water for cooking or drinking. This will improve water quality by bringing in fresh water, and reduce lead levels if present in your home's plumbing



**Clean faucet screens.**

At the tip of some faucets you will find an aerator screen. This screen blends air into the water, which cuts down on water use. But it can also trap sediments and metals from your pipes and hot water tank. This can impact water quality and may block water flow. Twist off to remove and clean the aerator.



**Do not use hot tap water for cooking, drinking, or making baby formula.**

Hot water can help dissolve metals such as lead into your drinking water. Always start with cold water and heat as necessary.

## Water Quality Data Table

The following table lists all of the drinking water contaminants detected at MCAS Iwakuni. The presence of contaminants does not necessarily indicate that the water poses a health risk. All substances detected in MCAS Iwakuni's drinking water meet DOD JECS requirements.

CONTAMINANT (UNITS)	AL MCL	Highest Level Detected	Lowest Level Detected	Year	Possible Source of Contamination	Violation	
<b>MICROBIOLOGICAL</b>							
Total Coliform (positive samples/month)	0	0	0	Monthly 2019	Naturally present in the environment. Used as an indicator that other potentially harmful bacteria may be present.	No	
<b>DISINFECTANTS &amp; DISINFECTION BYPRODUCTS</b>							
Residual Chlorine (ppm)	MRDL=4.0	0.60	<0.05	2019	Water additive used to control microbes	No	
Total Trihalomethanes (ppb)	80	51.0	9.5	2019	Byproduct of drinking water disinfection	No	
Haloacetic Acids (HAA5) (ppb)	60	17.0	1.1	2019	Byproduct of drinking water disinfection	No	
<b>INORGANIC CHEMICALS / METALS</b>							
Barium (ppm)	2	0.0077	0.0045	2019	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	No	
Fluoride (ppm)	4	0.10	0.10	2019	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories	No	
Total Nitrite and Nitrate (ppm)	10	0.42	0.004	2019	Runoff from fertilizer use; Leaking from septic tanks; Sewage; Erosion of natural deposits	No	
Sodium (ppm)	N/A	5.9	5.9	2019	Naturally occurring	No	
<b>LEAD &amp; COPPER</b>	<b>AL</b>	<b>AREA</b>	<b>90th Percent Value</b>	<b>SITES EXCEEDING ACTION LEVEL/ # OF SITES</b>	<b>Year</b>	<b>Possible Source of Contamination</b>	
Copper (ppm)	1.3	ATG	0.039	0 / 20	2019	Internal corrosion of household plumbing systems; Erosion of natural deposits	No
		MAIN	0.023	0 / 30			
		MON	0.12	0 / 15			
Lead (ppm)	0.015	ATG	0.008	1 / 20	2019	Internal corrosion of household plumbing systems; Erosion of natural deposits	No
		MAIN	0.0013	1 / 30			
		MON	0.011	1 / 15			

MCAS Iwakuni monitors for many contaminants and only those detected by laboratory analysis or at sampling locations 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.

**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.

**ND:** Not Detected.

**ppb:** parts per billion or micrograms per liter

**ppm:** parts per million or milligrams per liter

## SUMMARY OF COMPLIANCE DISCREPANCIES

Discrepancy	Consumer Health Impact	Corrective Action
Low chlorine residuals have been measured.	None – chlorine is added to drinking water to eliminate bacteria. No bacteria have ever been detected.	Flushed water pipes to increase the amount of fresh water containing higher levels of chlorine.

## ADDITIONAL SAMPLING INFORMATION

### In 2019 two non-routine water sampling events were performed at MCAS Iwakuni:

- “Lead In Priority Area” (LIPA) testing occurred at the new School Age Care Facility prior to its opening. The analytical work was done at an EPA certified lab and came back with no discrepancies.
- A one off sampling suite was performed on a house unit in Monzen due to aesthetic complaints following a pipe repair project and subsequent line flushing. The ordered and performed tests included *Legionella*, *Cryptosporidium*, and *Giardia lamblia* cysts, Heavy Metals, Foaming Agents, Total Residue, Color, Turbidity, Copper, Lead, Alkalinity, Calcium, Total Dissolved Solids (TDS), Conductivity, and Corrosivity. The results were all within JEGS guidelines.

In 2020 MCAS Iwakuni Environmental will be having the drinking water tested for per- and polyfluoroalkyl substances (PFAS). These are a group of man-made chemicals that have been in use since the 1940s, and are (or have been) found in many consumer products like cookware, food packaging, and stain repellants. PFAS manufacturing and processing facilities, airports, and military installations that use firefighting foams are some of the main sources of PFAS. <https://www.epa.gov/pfas/basic-information-pfas>

The table on page four list constituents detected during 2019 water sampling. Only those constituents detected are listed. The presence of a contaminant does not necessarily indicate the water poses a health risk. As such, MCAS Iwakuni’s drinking water is deemed fit for human consumption. For more information on this report or water quality in general, please contact the MCAS Iwakuni Environmental Division, Water Program Manager- David R. Campbell at 253-5388 or [david.r.campbell1@usmc.mil](mailto:david.r.campbell1@usmc.mil).