



Consumer Confidence Report FLCY Hachinohe Drinking Water System 2016



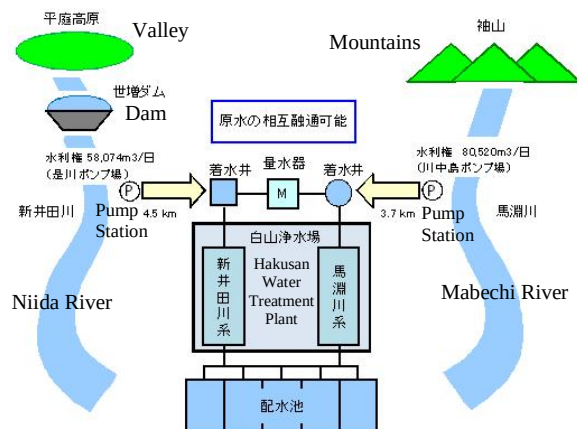
Naval Air Facility Misawa

Issued in accordance with Commander, Navy Installation Command Policy Letter 5200, Ser N4/13U84441, 15 Oct 13.
This report reflects monitoring data collected in 2016 and will be updated annually.

The Navy is pleased to provide you with this annual consumer confidence report on drinking water quality for FLCY Hachinohe. This report provides information about the water delivered to FLCY Hachinohe 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 FLCY Hachinohe is safe to drink.** Our goal is, and always has been, to provide safe and dependable drinking water.

Source of Water

Each of the three FLCY Hachinohe sites receives its drinking water from a metered connection to the Hachinohe Regional Water Supply Authority (HRWSA) system. HRWSA is the Japanese municipal authority which owns and operates the water sources, treatment facility, and storage and regional distribution systems. Drinking water at FLCY Hachinohe is surface water from the Mabechi River and the Niida River. The raw water is pumped to the Hakusan Water Treatment Plant where it receives full conventional treatment and chlorine disinfection. A schematic of the HRWSA system serving FLCY Hachinohe is shown below.



Water Distribution System

Water distribution networks at the three FLCY Hachinohe sites are administratively managed together as one water distribution system because all three sites receive treated water from the same source. Naval Air Facility Misawa Public Works Department (PWD) operates the water distribution system within the bounds of FLCY Hachinohe and manages compliance actions with all water quality requirements.

Compliance with Drinking Water Requirements

U.S. military installations overseas are required to meet all criteria established in the 2016 Japan Environmental Governing Standards, which are intended to ensure DoD activities and installations in Japan protect human health and the natural environment through specific environmental compliance criteria. Since 4 Feb 2013, all U.S. Navy installations are also required to meet or exceed U.S. National Primary Drinking Water regulations under the Safe Drinking Water Act of 1974, to ensure overseas drinking water systems meet the same water quality as required in the U.S. These standards require monitoring and testing of the drinking water for contaminants on a regular basis, ensuring it is safe to drink. PWD regularly conducts compliance audits to verify compliance, and sanitary surveys are conducted every three years by external teams. Discrepancies found in 2016 are summarized in a table on page 4 of this report. A serious compliance problem caused by water pipes being a source of chemical contamination in the drinking water was corrected in 2015 by replacing the pipes. The effectiveness of this action was confirmed by careful drinking water sampling and analysis in early 2016. All actions were further reviewed and approved by regional Navy authorities to ensure the problem was properly corrected.

Important Health Information

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. US Environmental Protection Agency and Centers for Disease Control and Prevention guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791 or visiting the EPA website at <https://www.epa.gov/dwstandardsregulations/drinking-water-contaminant-human-health-effects-information>

Possible Sources of Contaminants

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 <https://www.epa.gov/dwstandardsregulations>

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. 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 stormwater 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 stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts 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.

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. PWD Misawa 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 more than six hours, you can further 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, 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 at <https://www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water>

Disinfection Byproducts

Chlorine or other chemicals are added to drinking water during the treatment process to disinfect it from microbial contaminants such as viruses and bacteria. These chemicals also react with dissolved organic matter to produce chemical byproducts that may be harmful. As with other contaminants, these are carefully monitored to ensure consumer health.

Drinking Water Monitoring

PWD Misawa uses Japanese and EPA approved laboratory methods to analyze our drinking water and monitors drinking water for the following constituents.

Constituent	Frequency
Coliform Bacteria, pH, Chlorine, Temperature	Monthly
Disinfection Byproducts, Inorganic Chemicals, Volatile Organic Chemicals	Annually
Lead, Copper, PCBs, Herbicides and Pesticides	Every 3 years
Radionuclides	Every 4 years
Asbestos	Every 9 years

The table on page 3 lists constituents detected during the latest round of required sampling. Only those constituents detected are listed. The presence of a contaminant does not necessarily indicate the water poses a health risk. Drinking water samples were collected from each of the three sites, and the only concern identified was a low level of chlorine disinfectant during the warmest months. Although low, chlorine was consistently present to provide disinfecting action throughout the water system, and no bacteria were present during monthly testing.
FLCY Hachinohe drinking water remains safe and fit for human consumption.

A Frequently Asked Question

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

No, the water is safe to drink. 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.

FLCY HACHINOHE – DRINKING WATER CONTAMINANTS DETECTED

Contaminant	Unit of Measure	Detected Level		Max Limit (MCL/ MRDL*)	Violation?	Possible Source of Contamination
		High	Low			
INORGANIC CONTAMINANTS						
Barium	mg/L	0.0059	0.0051	2.0	No	Erosion of natural deposits
Fluoride	mg/L	0.064	ND	4.0	No	Erosion of natural deposits Water additive
Nitrate	mg/L	1	1	10	No	Erosion of natural deposits
Sodium	mg/L	11	7.8	200	No	Erosion of natural deposits
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine	mg/L	0.84	0.10	4.0*	No**	Disinfectant
Total Trihalomethanes	mg/L	0.0654	0.0084	0.08	No	By-product of chlorination
Halo Acetic Acids (HAA5)	mg/L	0.094	0.0060	0.06	No	Bv-product of chlorination

Contaminant	Unit of Measure	90 th Percentile	AL (mg/L)	# of samples exceeding AL	Violation?	Possible Source of Contamination
Copper	mg/L	0.015	1.3	0	No	Corrosion of household plumbing Erosion of natural deposits
Lead	mg/L	0.0027	0.015	0	No	Corrosion of household plumbing Erosion of natural deposits

Notes:

*Residual Chlorine - Maximum Residual Disinfectant Level.

**Chlorine residual should be maintained at a minimum of 0.2 mg/L to ensure against bacteriological growth in the distribution system, however no bacteria were detected. A plan to flush taps in select buildings has been implemented to increase the flow of fresh water containing higher levels of chlorine. Further study will be conducted to improve the flushing plan.

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. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG: Maximum Contaminant Level Goal. The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

mg/L: milligrams per liter.

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.

SUMMARY OF COMPLIANCE DISCREPANCIES IDENTIFIED IN 2016

Discrepancy	Consumer Health Impact	Corrective Action
Additional sampling was not performed as required when a pesticide was detected at a very low level in 2015.	None – the contaminant was well within limits and was not detected in most recent sampling Aug 2016.	Instructions for follow up sampling following detection of organic chemicals in any amount will be included in new management plan.
Sampling for disinfection byproducts in improper location.	Very unlikely – previous sampling results from an approved location show a trend of being well within limits over several years.	A study is being performed in 2017 to select sampling sites according to a new requirement.
Lack of certification for water system operators.	None – no water system health concerns were identified that relate to operator certification	PWD Misawa has obtained operator certification for three personnel
The water system has not been surveyed for plumbing materials containing lead and copper	None – because Hachinohe is such a small water system, all of the taps used to obtain drinking water are used as sample points for lead and copper analysis	A lead and copper materials survey is scheduled for 2017
No water main flushing program exists	Insignificant – although flushing would have corrected low concentrations of chlorine measured in 2016, chlorine disinfection was adequate to prevent any bacteria from being detected during monthly monitoring	A temporary flushing plan has been established and a study to develop a complete flushing program will be accomplished in 2017.
Laboratory used for bacteriological analysis does not meet Navy certification requirements	Very unlikely – although the laboratory does not meet Navy certification requirements, it does have a Japanese certification that meets other DoD requirements, and therefore the analytical results provided are highly reliable.	Navy authorities are working to reconcile US and Japanese laboratory standards in order to address this issue for all installations in Japan
Various plans and administrative requirements need to be accomplished	None to date – these requirements are designed to protect and maintain the water system, but their absence did not create any water quality issues in 2016	Action is underway to address these requirements and most will be completed by the end of 2017.

Contacts

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 FLCY Hachinohe facilities.

Installation Water Quality Board

Commander.....	226-3005
Fuel Director, FLCY Hachinohe.....	226-5777
Public Works Officer.....	226-3592
Preventive Medicine, U.S. Naval Hospital.....	243-2616
Public Affairs Officer.....	226-4363
Public Works Environmental Director.....	226-2497

Please contact the NAF Misawa Public Affairs Office at 226-4363 or Ryan.Delcore@fe.navy.mil for questions on drinking water in general.