Consumer Confidence Report
Naval Air Facility Atsugi
Drinking Water Systems 2023

Issued in accordance with Commander, Navy Installations Command Instruction 5090.1B, 15 Mar 2021.
This report reflects monitoring data collected in 2023 and will be updated annually.

2023 NAVAL AIR FACILITY ATSUGI WATER QUALITY REPORT

This year's water quality report covers calendar year 2023 water quality testing. The *Consumer Confidence Report Rule* of the Federal Safe Drinking Water Act requires this information be provided to the public. This report provides information on the source of our water, what contaminants were found, and health risks associated with any contaminants that were found. Naval Air Facility (NAF) Atsugi uses best available technology to remove contaminants from the water and continuously monitors drinking water quality throughout the system. The drinking water at NAF Atsugi is SAFE to drink. Our primary goal is, and always has been, to provide you with safe and dependable drinking water.

SOURCE OF WATER

NAF Atsugi provides drinking water to all base housing and facilities derived from the Sagamino Gravel Layer (SGL) and Zama-Kyuryo Gravel Layer (ZGL) Aquifers, which is a groundwater source underlying the installation. Groundwater is pumped from SGL and ZGL Aquifers into the water distribution system by two production wells.

Your water is treated at the NAF Atsugi Water Treatment Plant located in main base with an air stripper to remove Trichloroethylene (TCE), and is disinfected with sodium hypochlorite to protect against harmful bacteria and viruses. Fluoride is added to aid in dental hygiene.

Figure 1: Air Stripper Tanks

Figure 2: Sodium Hypochlorite & Fluoride

OVERSEAS DRINKING WATER PROGRAM

NAF Atsugi is required to meet or exceed all criteria established in the Japan Environmental Governing Standards (JEGS) and the National Primary Drinking Water regulations promulgated under the Safe Drinking Water Act of 1974. This is to ensure human health and the natural environment are protected through the promulgation of specific environmental compliance criteria. NAF Atsugi is currently taking steps to meet all requirements of the Navy's Overseas Drinking Water (ODW) program. In March 2022, the Navy Overseas Water Quality Oversight Council (WQOC) recommended NAF Atsugi retain its Conditional Certification to Operate (CTO) for its water system. This affirms that NAF Atsugi water system is safe and the water is fit for human consumption.

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 risks from infections. These people should seek advice about drinking water from their health care providers. EPA/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 (1-800-426-4791).

WHY ARE THERE CONTAMINANTS IN MY WATER?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, groundwater and wells (Figure 3). 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. 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. They can also come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants**, which can be naturally occurring or the result of oil and gas production and mining activities.

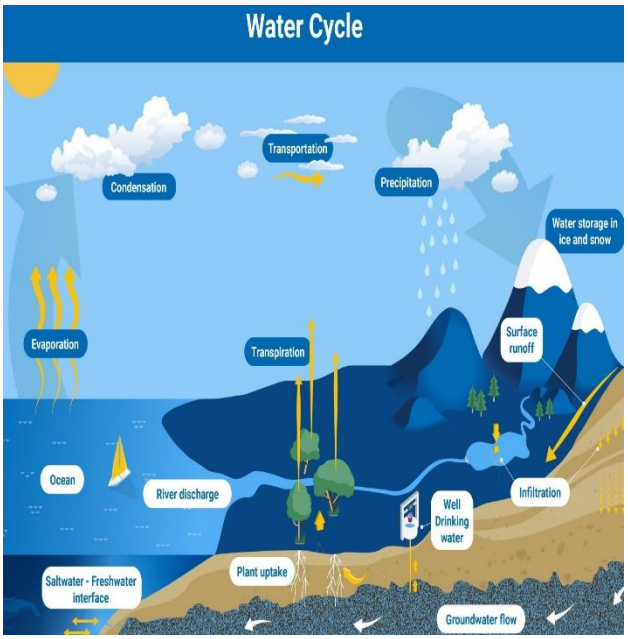

Figure 3: Sources of drinking Water

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791). https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations

EPA established a three-tier public notification plan for drinking water, summarized in **Table 1**. NAF Atsugi follows this outline to ensure you are notified in a timely manner, when necessary.

Table 1. The 3 Tiers of Public Notification*

	Required Distribution Time	Distribution Method
Tier 1: Immediate Notice	Any time a situation occurs where there is the potential for human health to be immediately impacted, water suppliers have 24 hours to notify people who may drink the water of the situation.	Tier 1 notification is via All Hands E-mail message and Facebook post.
Tier 2: Notice as Soon as Possible	Any time a water system provides water with levels of a contaminant that exceed EPA or state standards or that hasn't been treated properly, but that doesn't pose an immediate risk to human health, the water system must notify its customers as soon as possible, but within 30 days of the violation.	Tier 2 notification is via All Hands E-mail message and Facebook post.
Tier 3: Annual Notice	When water systems violate a drinking water standard that does not have a direct impact on human health (For Example, failing to take a required sample on time) the water supplier has up to a year to provide a notice of this situation to its customers.	Tier 3 notification is published annually in this document, the Consumer Confidence Report.

*Definitions from EPA website.

See http://water.epa.gov/lawsregs/rulesregs/sdwa/publicnotification/basicinformation.cfm for more information.

OTHER POTENTIAL CONTAMINANTS

TRICHLOROETHYLENE

In the early 1990's, Trichloroethylene (TCE) was found in local groundwater at levels exceeding the maximum contaminant level (MCL). Your Water Treatment Plant utilizes a process known as air stripping to reduce TCE levels below their MCL threshold. The air stripping process involves interaction between a contaminant-free gas (air) and the contaminated water to release the organics into the air. This process can effectively remove approximately 70 to 100 percent of TCE. The TCE removal facility was designed to treat an incoming TCE concentration of 15 parts-per-billion (ppb).

The TCE concentration both from the raw source water and the treated water is monitored quarterly to ensure that the TCE level is within the allowable limit. In CY2023, four consecutive quarterly samples were taken and all sample results showed no detection of TCE in treated water.

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. 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 2 minutes before using the water for drinking or cooking. Drinking water samples are collected from consumer taps including family housing units to analyze for lead annually. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead.

LEAD IN PRIORITY AREAS (LIPA)

In an effort to reduce children's potential exposure to lead, drinking water in priority area facilities was tested in 2014 to establish a baseline at all DoD Schools, Child Development Centers (CDCs) and Youth Centers (YCs). In March 2019, the WQOC issued a new LIPA policy that lowered the lead screening level from 20 parts per billion (ppb) to 15 ppb. Effective April 2019, the policy required corrective actions for any outlets that previously tested greater than 15 ppb.

In 2020, the U.S. Environmental Protection Agency (EPA) required, for the first time, testing for lead in drinking water in schools and daycare centers. Navy leadership has adopted the U.S. EPA guidelines for sampling and testing for lead in schools and child-care facilities as policy. This proactive approach to the identification and elimination of potential sources of lead in facilities that cater to children shows our commit-ment to the safety and well-being of our Navy families. NAF Atsugi samples all drinking water faucets for Lead at Priority Areas every five years in an effort to reduce children's potential exposure as required by Navy policy. The next five year recurring sampling event will be conducted in July 2024 at NAF Atsugi Main Base priority area facilities. Results will be available on the CNIC website: https://cnrj.cnic.navy.mil/Operations-and-Management/Water-Quality-Information/Lead-in-Priority-Area-Sampling-Program/

WHAT ARE PER– AND POLYFLUOROALKYL SUBSTANCES AND WHERE DO THEY COME FROM?

Per- and polyfluoroalkyl substances (PFAS) are a group of thousands of man-made chemicals. PFAS have been used in a variety of industries and consumer products around the globe, including in the U.S., since the 1940s. PFAS have been used to make coatings and products that are used as oil and water repellents for carpets, clothing, paper packaging for food, and cookware. They are also contained in some foams (aqueous film-forming foam or AFFF) currently used for fighting petroleum fires at airfields and in industrial fire suppression processes. PFAS chemicals are persistent in the environment and some are persistent in the human body – meaning they do not break down and they can accumulate over time.

IS THERE A FEDERAL OR JAPANESE REGULATION FOR PFAS IN DRINKING WATER?

On April 10, 2024, the US EPA established MCLs for a subset of PFAS chemicals, see **Table 2**. EPA requires implementation of sampling in accordance with the new MCLs within three years of the publication date and implementation of any required treatment within five years.

These limits did not apply for the 2023 calendar year because they had not been published. However, the DoD proactively promulgated policies to monitor drinking water for PFAS at all service owned and operated water systems at a minimum of every two years. The DoD policy states that if water sampling results confirm that drinking water contains PFOA and PFOS at individual or combined concentrations greater than the 2016 EPA health advisory (HA) level of 70 parts per trillion (ppt), water systems must take immediate action to reduce exposure to PFOA or PFOS. For levels less than 70 ppt but above the 4 ppt level (draft at the time of policy

publication), DoD committed to planning for implementation of the levels once EPA's published MCLs take effect.

Table 2. New EPA MCLs PFAS Chemical	Maximum Contaminant Level (MCL)
PFOA	4.0 Parts Per Trillion (PPT)
PFOS	4.0 PPT
PFNA	10 PPT
PFHxS	10 PPT
HFPO-DA (GenX Chemicals)	10 PPT
Mixture: PFNA, PFHxS, HFPO-DA, and PFBS	*Hazard Index (HI) of 1

*Hazard Index: The Hazard Index is a approach that EPA uses to understand health risk from chemical mixture (i.e. exposure to multiple chemicals). HI compares the level of each PFAS measured in the water to the health-base water concentration. Reference- EPA Final PFAS Fact Sheet.

HAS NAF ATSUGI TESTED ITS WATER FOR PFAS in 2023?

Yes. In 2023 samples were collected from Building 470, Monitoring Wells 1-4, Production Wells #1, #2a-2c, and #3.

REGULATED PFAS DETECTED ABOVE MCL BUT BELOW THE 2016 EPA HA for PFOS/PFOA

We are informing you that PFOA and PFOS were detected above new MCL but below the 2016 EPA HA. Other PFAS compounds covered by the sampling method were detected above the method reporting limit (MRL) but EPA does not have a HA for these compounds at this time. The results are provided in **Table 3**. PFOA and PFOS were below the 2016 EPA HA of 70 parts per trillion, there is no immediate cause for concern, but NAF Atsugi will continue to monitor the drinking water quarterly.

For regulated PFAS above the new MCL and in accordance with DoD policy, Navy is coordinating with DoD to plan and program operational controls or additional treatment to ensure the drinking water meets the MCLs as soon as practicable at all of our impacted installations.

Table 3. PFAS MONITORING RESULTS

Contaminants	Unit	Sample Year	Detected Range *Note 1*		Health Advisory
			Low	High	
Perfluoro-1-butane sulfonic acid (PFBS)	ppt	2023	ND	9.7	N/A
Perfluoro-n-heptanoic acid (PFHpA)	ppt	2023	ND	4.7	N/A
Perfluorohexane sulfonic acid (PFHxS)	ppt	2023	3.3	36	10
Perfluoro-n-hexanoic acid (PFHxA)	ppt	2023	2.1	12.0	N/A
Perfluoro-n-nonanoic acid (PFNA)	ppt	2023	ND	4.2	10
Perfluorooctane sulfonic acid (PFOS)	ppt	2023	4.8	35	70
Perfluoro-n-octanoic acid (PFOA)	ppt	2023	2.4	25	70

Note 1: Detected Range is from individual sample results from the calendar year covered by the report.

2023 WATER QUALITY DATA

The following data presented in the tables below are the results of monitoring for the reporting period of 1 January 2023 — 31 December 2023. Only constituents that are detected are listed in the table below. Contaminants that are not present on table were below the detection levels specified in the JEGS and 40 Code of Federal Regulations 141.151(d). Detection of contaminants in drinking water does not necessarily indicate that water poses a health risk.

DEFINITIONS:

1. Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or requirements such as additional testing, public notification, or improvements.

2. Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

3. Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety. Values greater than MCLG but less than MCL have no known health risk.

4. Maximum Residual Disinfection Level (MRDL): The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants.

5. Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits to control microbial contamination.

ABBREVIATIONS:

ppm: parts per million (or milligrams per liter) ppb: parts per billion (or micrograms per liter) ND: not detected (above laboratory detection limit)

MANDATORY STANDARDS AND HEALTH RELATED STANDARDS ESTABLISHED BY USEPA AND JEGS

Contaminants (Units)	Sample Year	MCLG	MCL	Detected Range		Violation	Possible Source of Contaminants
				Low	High		
INORGANIC CHEMICALS (ppm)							
Fluoride	2023	4	4	0.13	0.88	No	Added for the prevention of tooth decay
Nitrate (measured as Nitrogen)	2023	10	10	ND	4.5	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
VOLATILE ORGANIC COMPOUNDS (ppm)							
cis-1,2-Dichloroethylene	2023	0.07	0.07	ND	0.00014	No	From solvents for waxes and resins, refrigerants
RADIONUCLIDES (pCi/L)							
Combined Radium 226 & 228	2023	0 *Note 1*	5 *Note 1*	0.41	1.37	No	Erosion of natural deposits
Alpha Emitters	2023	0	15	0.845	2.78	No	Erosion of natural deposits
DISINFECTION BYPRODUCTS (ppb)							
Five Haloacetic Acids [HAA5]	2023	N/A *Note 2*	0.060	ND	ND	No	Byproduct of drinking water chlorination
Total Trihalomethanes [TTHM]	2023	N/A *Note 2*	0.080	0.00054	0.0057	No	Byproduct of drinking water chlorination
DISINFECTANT RESIDUALS (ppm)							
Contaminant	**Sample Year**	**MRDLG/ MRDL**	**Your Water**	**Detected Range**		**Violation**	**Sources of Contamination**
				Low	**High**		
Residual Chlorine	2023	4	0.55 *Note 3*	0.26	0.72	No	Disinfectant water additive to control microbes
LEAD (ppb) AND COPPER (ppm)							
Contaminants (Units)	**Sample**	**MCLG**	**AL**	**90th Percentile**		**Violation**	**Sources of Contamination**
Lead	2023	0	15	2.9 *Note 4*		No	Corrosion of household plumbing systems; Erosion of natural deposits
	Zero out of 20 samples were found to have lead levels in excess of the lead action level of 15 ppb						
Copper	2023	1.3	1.3	0.032 *Note 4*		No	Corrosion of household plumbing systems; Erosion of natural deposits
	Zero out of 20 samples were found to have copper levels in excess of the copper action level of 1.3 ppm						

Note 1: The combined radium (total radium-226 and radium-228, pCi/L) MCL and MCLG are 5 and 0 respectively.

Note 2: Although there is no collective MCLG for this group, there are individual MCLGs for some of the individual contaminants.
HAA: monochloroacetic acid (70ppb), dichloroacetic acid (zero), tri-chloroacetic acid (20 ppb). THM: bromodichloromethane (zero), bromoform (zero), dibromo-chloromethane (60 ppb).

Note 3: Chlorine Residual is calculated based on quarterly Running Annual Average (highest reportable average)

Note 4: The AL is exceeded if the concentration of more than 10 percent of tap water samples collected (the "90th percentile" level) is greater than 1.3 ppm for copper and 15 ppb for lead.

HOW TO REPORT A WATER QUALITY COMPLAINT

If you notice discoloration in your drinking water, a funny taste, or if you have any concerns about your drinking water, we strongly encourage you to contact the Environmental Division at 315-264-4094. Arrangements can be made to have your water sampled and analyzed to ensure that it is safe to drink.

Cross-connection and Backflow Prevention

Did you know that any connection between a public drinking water system and a separate source of questionable quality is considered a cross-connection?

HOW TO OBTAIN ADDITIONAL INFORMATION

We are committed to ensuring the quality of NAF Atsugi drinking water to the highest standards possible. Public queries and additional information regarding this report can be obtained by contacting the NAF Atsugi Public Affairs Office at 315-264-4453.