



Consumer Confidence Report

Naval Air Facility Atsugi

Drinking Water Systems 2022

Issued in accordance with Commander, Navy Installations Command Instruction 5090.1B, 15 Mar 2021.
This report reflects monitoring data collected in 2022 and will be updated annually.

2022 NAVAL AIR FACILITY ATSUGI WATER QUALITY REPORT

This year's water quality report covers calendar year 2022 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 conventional treatment 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 to provide you with safe and dependable drinking water.

SOURCE OF WATER

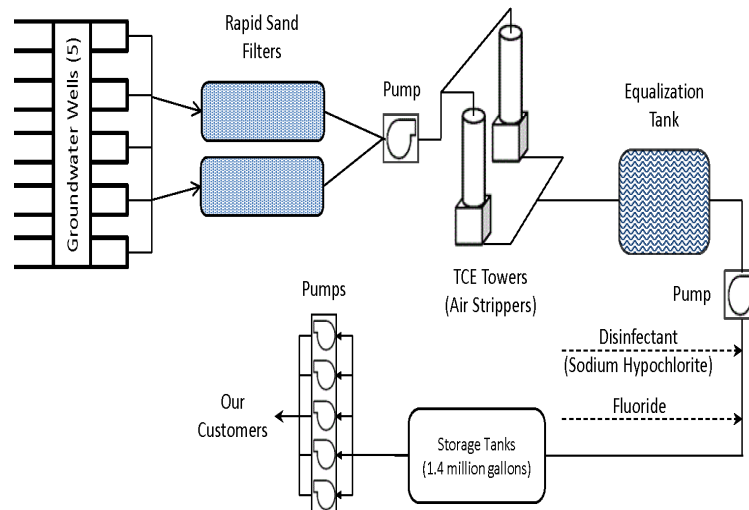
NAF Atsugi provides drinking water to all base housing and facilities derived from the Sagamino Gravel Layer (SGL) and Zama-Kyuryo Gravel Layer (ZGL) Aquifers, which is a groundwater source underlying the installation. Groundwater is pumped from SGL and ZGL Aquifers into the water distribution system by five (5) production wells.

Your water is treated with an air stripper (Diagram 1) 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. Diagram 2 highlights Atsugi's water treatment process.

Diagram 1



Diagram 2



(Sand Filter was disconnected in May 2022)

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 application 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 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. NAF Atsugi is expected to receive a full CTO when all significant deficiencies identified during the Sanitary Survey are corrected. All remaining (two) significant deficiencies are expected to be corrected early 2024.

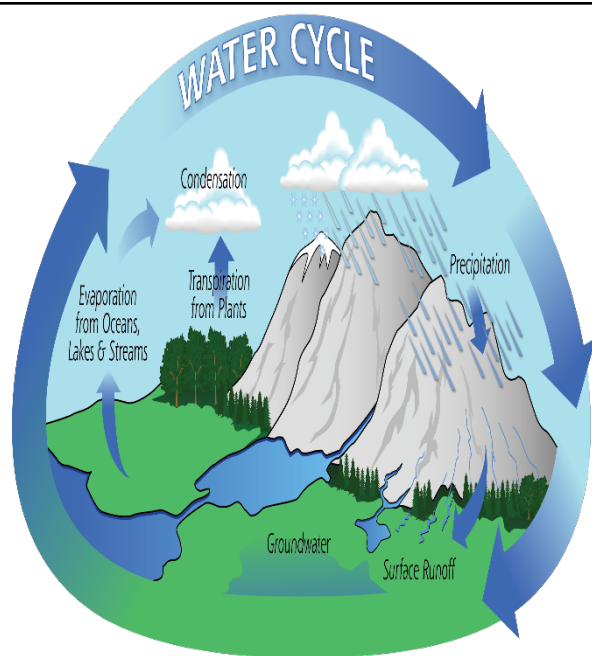
IMPORTANT HEALTH INFORMATION

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, 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. 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.



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 CY2022, 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 commitment 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 during the 2024 school year at NAF Atsugi Main Base priority area facilities.

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 industrial and consumer products around the globe, including in the U.S., for decades. Due to their widespread use and environmental persistence, most people in the United States have been exposed to certain PFAS. 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) used for fighting petroleum fires.

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

There is currently no federal drinking water standard for any PFAS compounds. In May 2016, the U.S. Environmental Protection Agency (EPA) established a lifetime drinking water health advisory (HA) level at 70 parts per trillion (ppt) for individual or combined concentrations of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). Both chemicals are types of PFAS.

The Department of Defense (DoD) issued a policy in 2020 to monitor drinking water for PFAS at all DoD owned and operated water systems at a minimum of every three 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 HA level of 70 ppt, water systems would 1) take immediate action to reduce exposure to PFOS or PFOA, to include providing alternative drinking water; and 2) undertake additional sampling to assess the level, scope, and localized source of contamination.

WHAT ABOUT THE EPA'S 2022 INTERIM HEALTH ADVISORIES OR PROPOSED REGULATIONS?

EPA issued interim Health Advisories for PFOS and PFOA in 2022. However these newer levels are below quantifiable limits (i.e., below detection levels). EPA is expected to issue a proposed regulation on PFAS drinking water standards for public comment in the next few months. DoD looks forward to the clarity that a nationwide regulatory standard for PFOS and PFOA in drinking water will provide.

In anticipation of this EPA drinking water regulation and to account for emerging science that shows potential health effects of PFOS and PFOA at levels lower than 70 ppt, DoD is evaluating its efforts to address PFAS in drinking water, and what actions we can take to be prepared to incorporate this standard, such as reviewing our current data and collecting additional sampling where necessary. DoD remains committed to communicating and engaging with our communities throughout this process.

HAS NAF ATSUGI TESTED ITS WATER FOR PFAS?

Yes. In 2022 samples were collected from Building 470, Monitoring Wells 1-4, Production Wells #1, #2a-2c, and #3.

PFAS DETECTED BUT PFOA/PFOS WERE BELOW THE 2016 EPA HA

We are informing you that PFOA and PFOS were detected 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 2**. PFOA and PFOS were below the 2016 EPA HA of 70 parts per trillion, we will continue to monitor the drinking water quarterly. In accordance with DoD policy, NAF Atsugi has been collecting quarterly samples for PFAS since December 2020.

Table 2. PFAS MONITORING RESULTS					
Contaminants	Unit	Sample Year	Detection Range		Health Advisory
			<i>Notes 1, 2</i>		
			Low	High	<i>Note 2</i>
Perfluoro-1-butane sulfonic acid (PFBS)	ppt	2022	ND	6	N/A
Perfluoro-n-heptanoic acid (PFHpA)	ppt	2022	ND	3.7	N/A
Perfluorohexane sulfonic acid (PFHxS)	ppt	2022	3.5	55	N/A
Perfluoro-n-hexanoic acid (PFHxA)	ppt	2022	2.1	6.5	N/A
Perfluoro-n-nonanoic acid (PFNA)	ppt	2022	ND	4.2	N/A
Perfluorooctane sulfonic acid (PFOS)	ppt	2022	5.4	35	70
Perfluoro-n-octanoic acid (PFOA)	ppt	2022	3	16	70

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

Note 2: All units are parts per trillion (ppt).

2022 WATER QUALITY DATA

The following data presented in the tables below are the results of monitoring for the reporting period of 1 January 2022 — 31 December 2022. 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	Detection Range		Violation	Sources of Contamination
				Low	High		
INORGANIC CHEMICALS (ppm)							
Fluoride	2022	4	4	0.51	0.91	No	Water additive which promotes strong teeth; Erosion of natural deposits
Nitrate (measured as Nitrogen)	2022	10	10	4.9	5	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
RADIONUCLIDES (pCi/L)							
Beta Particles	2022	0	4	1.14	2.06	No	Erosion of natural deposits
Tritium	2022	0	Various	193	270	No	Erosion of natural deposits
Strontium-90	2022	0	Various	0.53	0.9	No	Erosion of natural deposits
DISINFECTION BYPRODUCTS (ppb)							
Five Haloacetic Acids [HAAs] (mg/L)	2022	N/A <i>Note 1</i>	0.060	ND	ND	No	Byproduct of drinking water chlorination
Total Trihalomethanes [TTHM] (mg/L)	2022	N/A <i>Note 1</i>	0.080	0.00068	0.0053	No	Byproduct of drinking water chlorination
DISINFECTANT RESIDUALS (ppm)							
Contaminants (Units)	Sample Year	MRDLG	MRDL	Detection Range		Violation	Sources of Contamination
				Low	High		
Residual Chlorine	2022	4	4	0.29	0.76	No	Disinfectant water additive to control microbes
LEAD (ppb) AND COPPER (ppm)							
Contaminants (Units)	Sample	MCLG	AL	90th Percentile		Violation	Sources of Contamination
Lead	2022	0	0.015	0.00094 <i>Note 2</i>		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	2022	1.3	1.3	0.023 <i>Note 2</i>		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: 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 2: 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.

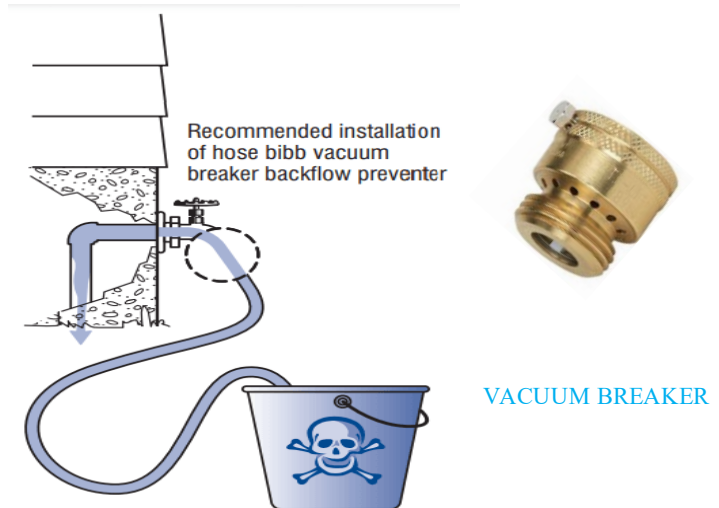
HOW TO REPORT A WATER QUALITY COMPLAINT

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?

For example, an ordinary garden hose submerged in a bucket of water, car radiator, or swimming pool can result in backflow contamination. To protect our water supply, a simple screw-on vacuum breaker must always be attached to the faucet when a garden hose is used.



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 315-264-4452.