



# **ANDERSEN AIR FORCE BASE**

## **2025 DRINKING WATER QUALITY REPORT**

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DEPARTMENT OF THE AIR FORCE  
36TH OPERATIONAL MEDICAL  
READINESS SQUADRON  
PWS ID No. GU0000009

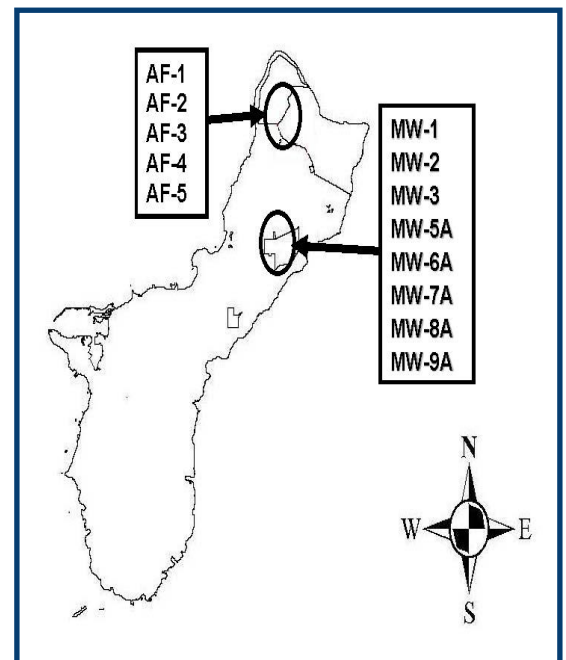
# 2025 ANDERSEN AIR FORCE BASE WATER QUALITY REPORT



This report represents information on the quality of Andersen Air Force Base drinking water for calendar year 2025. The *Consumer Confidence Report Rule* of the federal Safe Drinking Water Act requires this information be provided to the public annually. This report includes information on the source of our water and health risks associated with any contaminants that were found and contains technical language required by the United States Environmental Protection Agency (US EPA) designed to further public understanding about public water systems and potential hazards.

## ANDERSEN AIR FORCE BASE WATER SYSTEM

Andersen Air Force Base provides drinking water to all base housing and facilities derived from the Northern Guam Lens Aquifer, which is a groundwater source underlying the northern portion of Guam. Groundwater is pumped from the underground aquifer into the water distribution system by 13 wells (see map to the right). Water produced from these wells is combined at four entry points to the distribution system: Booster 2, Booster 3, Building 9060 Storage Tank, and Building 61207 Northwest Field (NWF). At these facilities, water undergoes treatment and storage before being distributed throughout Andersen Air Force Base.



# DRINKING WATER REGULATIONS

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits to contaminants in bottled water, which must provide the same protection for public health.

The *National Primary Drinking Water Regulations* set limits for contaminants in drinking water and standards for water treatment that primarily safeguard health. These regulations also require us to monitor your drinking water for specific contaminants on a regular basis. Bioenvironmental Engineering and the Water and Fuels Maintenance Shop at Andersen Air Force Base monitor chlorine and fluoride levels in drinking water on a daily basis.

## WHY ARE CONTAMINANTS FOUND 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. 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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 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.



# MONITORING, REPORTING, AND VIOLATIONS

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. All safe drinking water reports, along with supporting laboratory reports were submitted on time as required by the Guam Environmental Protection Agency.

## Total Coliform Trigger Level Exceedance and Level 1 Assessment

During 2025, our water system exceeded the trigger level for total coliform bacteria. Systems that collect fewer than 40 routine samples per month exceed the trigger level when two or more routine samples are total coliform-positive in a given month. During this monitoring period, two routine distribution system samples tested positive for total coliform bacteria.

As required under the Revised Total Coliform Rule, the system conducted a **Level 1 assessment** to evaluate potential issues with source water, treatment processes, distribution system integrity, or sampling practices that may have contributed to the detections. The Level 1 assessment was completed within the required 30-day timeframe, and appropriate corrective actions were implemented to address any identified issues and help prevent future occurrences.

Total coliform bacteria are generally not harmful themselves but are used as an indicator that other potentially harmful bacteria may be present in the water system.

## Special Monitoring for Dieldrin

As part of our ongoing compliance with Guam EPA regulations, routine water sampling was conducted to monitor for the presence of Dieldrin. Dieldrin is a persistent organochlorine pesticide, and Guam EPA has established an interim action level to guide public health protection. All sampled locations during this reporting period were below the laboratory detection limit, indicating no detection of Dieldrin in the drinking water. These results demonstrate that the water system continues to meet regulatory standards for pesticide contamination and remains safe for consumer use.

## Sanitary Survey Outstanding Deficiencies

In accordance with the U.S. Environmental Protection Agency (EPA) Ground Water Rule, we are required to report outstanding significant deficiencies identified during the recent Guam EPA sanitary survey conducted in April 2025. These issues relate to system protection and security and do not affect the current quality of your drinking water. We are actively working to correct them:

- Well MW-1 – Wellhead Protection: The well casing is below the recommended height above ground, which helps prevent surface water intrusion. The well is located within a protected structure with proper drainage and routine monitoring in place. A construction project is planned to correct this issue by December 9, 2027 (extension approved).
- Storage Tank Building 26 (DET 2) – Access Hatch Security: An access hatch was found unlocked. This is being corrected through an existing construction project, with completion expected by April 30, 2026.
- Storage Tank Building 9060A – Hatch Security: Access hatches were not properly secured. Improvements are underway as part of a construction project, with completion expected by January 30, 2026 (extension requested).
- Storage Tank Building 9060A – Minor Leak: A leak was identified at piping near the sampling point. Repairs are included in the same construction project, with completion expected by January 30, 2026 (extension requested).

We remain committed to maintaining a safe and reliable water system and will continue making improvements to protect your drinking water

# 2025 WATER QUALITY DATA

The following data presented are results of monitoring for the reporting period of January 1— December 31, 2025 and results of the most recent sampling for certain contaminants. As authorized and approved by EPA, the state has reduced monitoring requirements to less often than once per year for certain contaminants because concentrations of these contaminants do not change frequently. Some of our data though representative, are more than a year old. For those contaminants, the date of the last sample is shown in the table. Contaminants are reported based on the range of detected levels. Contaminants that are not present on table were below the detection levels specified in 40 Code of Federal Regulations 141.151(d).

## DEFINITIONS

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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.

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

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.

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 of the use of disinfectants to control microbial contamination.

Method Detection Limit (MDL): The minimum of concentration of an analyte that can be identified, measured, and reported with 99% confidence that the analyte concentration is greater than zero. The MDL determines if the analyte is present or not present (more qualitative).

Minimum Reporting Limit (MRL): The minimum concentration that can be reported by a laboratory as a quantitated values for a method analyte. MRL is also called Reporting Limit (RL) or Practical Quantification Limit (PQL). The MRL, RL, PQL, are defined as the lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

## ABBREVIATIONS

ND: Not Detected (above laboratory detection limit)

ppm: parts per million (or milligrams per liter)

ppt: parts per trillion (or nanograms per liter)

n/a: not applicable

ppb: parts per billion (or micrograms per liter)

pCi/L: picocuries per liter

Contaminants (Units)	Sample Year	MCLG	MCL	Detection low	Range high	Violation	Major Sources of Contamination	Locations Detected
<b>INORGANIC CONTAMINANTS</b>								
Fluoride (ppm)	2023	4	4	ND	0.65	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	Booster Station 3
Nitrate (ppm)	2025	10	10	0.91	1.7	No	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits	Booster Station 2, Booster Station 3, Building 9060 Storage Tank, Building 61207 NWF Storage Tank
<b>RADIONUCLIDES</b>								
Alpha emitters (pCi/L)	2023	0	15	ND	2.4	No	Erosion of natural deposits	Building 61207 NWF
Beta emitters (pCi/L)	2023	0	50	ND	0.71	No	Decay of natural and man-made deposits of certain minerals that are radioactive	Booster Station 3, Building 61207 NWF
Radium 226 (pCi/L)	2023	0 <i>Note 1</i>	5 <i>Note 1</i>	1.0	1.4	No	Erosion of natural deposits	Booster Station 2, Booster Station 3, Building 9060, Building 61207 NWF Storage Tank
Radium 228 (pCi/L)	2023	0 <i>Note 1</i>	5 <i>Note 1</i>	ND	0.38	No	Erosion of natural deposits	Building 61207 NWF
Uranium (ppb)	2023	0	30	0.46	1.3	No	Erosion of natural deposits	Building 61207 NWF Storage Tank
<b>SPECIAL MONITORING FOR SODIUM</b>								
Sodium (ppm)	2023	n/a	n/a	14	25	No	Salt water intrusion from aquifer/salt water interface	Booster Station 2, Booster Station 3, Building 9060 Storage Tank, Building 61207 NWF Storage Tank
<b>DISINFECTANT AND DISINFECTION BYPRODUCTS</b>								
Five Haloacetic Acids [HAA5] (ppb)	2025	n/a <i>Note 2</i>	60	nd	2.9	No	Byproduct of drinking water disinfection	Det 2 Building 32, NWF Building 61235
Total Trihalomethanes [TTHM] (ppb)	2025	n/a <i>Note 2</i>	80	4.1	10	No	Byproduct of drinking water disinfection	Det 2 Building 32, NWF, Building 61235, WRM Building 51104
Free Chlorine (ppm)	2025	4 (MRDLG)	4 (MRDL)	1 <i>Note 3</i>	1.2-1.3	No	Drinking water standards added to control microbes	Distribution system
Contaminants (Units)	Sample Year	AL	MCLG	YOUR WATER	Number of samples exceeding AL	Violation	Major Sources of Contamination	Locations Detected
<b>LEAD AND COPPER</b>								
Lead (ppb)	2025	10 <i>Note 4</i>	0	0.85	None	No	Corrosion of household plumbing system, erosion of natural deposits	Distribution system
Copper (ppm)	2025	1.3 <i>Note 4</i>	1.3	0.31	None	No	Corrosion of household plumbing system, erosion of natural deposits	Distribution system
<b>MICROBIOLOGICAL CONTAMINANTS</b>								
Contaminant (Units)	Sample Year	MCLG	MCL	Highest total coliform samples per month	Violation	Major Sources of Contaminant	Locations Detected	
Total Coliform	2025	0 <i>Note 5</i>	1 <i>Note 5</i>	2 positive samples	Yes <i>Note 5</i>	Naturally present in the environment	Distribution system	

## NOTES

**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 (70 ppb), dichloroacetic acid (zero), tri-chloroacetic acid (20 ppb). THM: bromodichloromethane (zero), bromoform (zero), chloroform (70 ppb), dibromochloromethane (60 ppb).

**Note 3:** Chlorine result is based on the highest calculated Running Annual Average (RAA).

**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 10 ppb for lead.

**Note 5:** In 2025, a routine sample and its subsequent repeat sample both tested positive for total coliform. For systems collecting fewer than 40 samples per month, this constituted a trigger level exceedance and required a Level 1 Assessment under the Revised Total Coliform Rule. The Level 1 assessment was completed within the required 30-day timeframe, and appropriate corrective actions were implemented to address any identified issues and help prevent future occurrences.

# SPECIAL MONITORING FOR PER—AND POLYFLUOROALKYL SUBSTANCES

## 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 regulation for PFAS in drinking water?

On April 26, 2024, the Environmental Protection Agency (EPA) published a National Primary Drinking Water Regulation (NPDWR) final rule on drinking water standards for six PFAS under the Safe Drinking Water Act (SDWA). The rule establishes the following maximum contaminant levels (MCLs): Under the NPDWR, regulated public water systems are required to complete initial monitoring by April 26, 2027. Beginning April 26, 2027, regulated PWSs will conduct ongoing compliance monitoring in accordance with the frequency dictated by the rule and as determined by the initial compliance monitoring results. Regulated PWSs must demonstrate compliance with the Maximum Contaminant Levels (MCLs) by April 26, 2029.

CONTAMINANT	MCL (ppt or ng/L)
Perfluorooctane sulfonic acid (PFOS)	4.0
Perfluorooctanoic acid (PFOA)	4.0
Hexafluoropropylene oxide dimer acid (HFPO-DA, commonly known as GenX)	10
Perfluorononanoic acid (PFNA)	10
Perfluorohexane sulfonic acid (PFHxS)	10
HI MCL for PFHxS, PFNA, perfluorobutane	1 (unitless)

In order to provide safe drinking water to all Department of Defense (DoD) personnel, OSD policy extends this requirement to all DoD systems which provide drinking water for human consumption, regardless of size of the drinking water system. In addition to the six regulated compounds, DoD-owned systems are required by DoD policy to monitor for all 25 compounds detected when using EPA Method 533.

Protecting the health of our personnel, their families, and the communities in which we serve is a priority for the Department. DoD is committed to complying with requirements of the NPDWR and the continued provision of safe drinking water to those that work and live on DoD installations.

## Has Andersen Air Force Base tested its waters for PFAS?

Yes. In August 2025 samples were collected from entry points to the distribution system (EPTDS) of the Andersen Air Force Base Water System. We are informing you that 9 of the 25 PFAS covered by the sampling method were detected in your water system. The sample results are provided in the table below.

### SUMMARY OF PER-AND POLYFLUOROALKYL SUBSTANCES RESULTS

Contaminant	MCL (ppt)	Booster 2 (ppt)	Booster 3 (ppt)	Bldg. 9060 Storage Tank (ppt)	Bldg. 61207 NWF ST (ppt)
Perfluorooctanoic acid (PFOA)	4.0	0.30	0.30	ND	ND
Perfluorooctanesulfonic acid (PFOS)	4.0	1.2	1.3	ND	ND
Perfluorohexanesulfonic acid (PFHxS)	10	2.6	2.8	0.42	ND
Hazard Index MCL for PFHxS, PFNA, perfluorobutane sulfonic acid (PFBS), and GenX *	1 (unitless)	0.26	0.28	0.042	0.00
Perfluorobutane sulfonate (PFBS)	N/A	0.60	0.57	0.55	ND
Perfluorobutanoic acid (PFBA)	N/A	0.31	0.37	ND	ND
Perfluoro-n-pentanoic acid (PFPeA)	N/A	0.71	0.71	0.30	ND
Perfluorohexanoic acid (PFHxA)	N/A	0.57	0.54	0.21	ND
Perfluoroheptanoic acid (PFHpA)	N/A	0.20	0.20	ND	ND
Perfluoropentanesulfonic acid (PFPeS)	N/A	0.29	0.28	ND	ND

Hazard Index (HI): The Hazard Index is a long-established approach that EPA regularly uses to understand health risk from chemical mixture. The HI is made up of a sum of fractions. Each fraction compares the level of each PFAS measured in the water to the highest level determined not to have risk of health effects. EPA set an HI MCL to control additive health effects for mixtures of two or more PFAS, including PFHxS, PFNA, HFPO-DA, and PFBS.



## LEAD IN DRINKING WATER

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. Bioenvironmental Engineering at Andersen Air Force Base 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 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 from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Andersen Air Force Base completed the Lead Service Line Inventory required by U.S. Environmental Protection Agency and Copper Rule Revisions for its water systems. The deadline for the initial inventory was Oct. 16, 2024.

Through completing a historical records review and field investigations, AAFB has determined it has no lead or galvanized requiring replacement service lines in its distribution system. For more information, contact the 36th Medical Group Bioenvironmental Engineering Flight at (671) 366-7166.

## HEALTH PRECAUTIONS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders and 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).

## HOW TO REPORT A WATER QUALITY COMPLAINT

Should you notice that your water is discolored, has a funny taste, or if you have any concerns about your drinking water, we strongly encourage you to contact Bioenvironmental Engineering at (671) 366-7166. Arrangements can be made to have your water sampled and analyzed to ensure that it is safe to drink.

## HOW TO OBTAIN ADDITIONAL INFORMATION

Team Andersen is committed to ensuring the quality of Andersen Air Force Base drinking water to the highest standards possible. Public queries and additional information regarding this report can be obtained by contacting the Andersen Public Affairs Office at (671) 366-4202. You may download an electronic copy of this report on the Andersen Air Force Base web page which will be published by 1 July 2026. Printed copies of this report may be obtained at the Bioenvironmental Engineering Office.