Marine Corps Air Station
Yuma Arizona





2024 Annual Drinking Water Report

The Water We Drink

The Environmental Protection Agency Safe Drinking Water Act and Arizona Dept. of Environmental Quality Drinking Water Rules require community water systems to provide an annual Consumer Confidence Report (CCR) to inform you about your drinking water. The water treatment professionals at Marine Corps Air Station (MCAS) Yuma are proud to provide you with this 2024 Annual Drinking Water Quality Report. We care for your water, we staff the MCAS Yuma Public Work Division with water treatment and water distribution system operators who are licensed and meet all state certification requirements. As in the past years, your tap water in 2024 met all federal and state drinking water quality standards. The 2024 CCR provides general information about your MCAS Yuma water. During 2024 MCAS Yuma received water from the City of Yuma for 6 months while mechanical repairs were performed at the MCAS Yuma water treatment plant. As soon as it is available the City of Yuma Consumer Confidence report will made available.

Where Does Our Water Come From?

MCAS Yuma's main drinking water source is surface water, which comes from the Colorado River via a canal system. The water system also operates a groundwater well which is used, as needed, to blend with the surface water to improve water quality. MCAS Yuma owns the land around the well and restricts activities to minimize impact.

Source Water Assessment

Making the water safe to drink starts by protecting the place it comes from. We work with state scientists at the Arizona Department of Environmental Quality (ADEQ) to examine water at its source to look for possible pollutants. This is called a Source Water Assessment (SWA). Based on the information available at the time of the assessment on the hydrogeology and land uses around the drinking water source(s) of this public water system, the Arizona Department of Environmental Quality (ADEQ) has given a high vulnerability designation for the degree to which this public water system drinking water source(s) are protected. A designation of high vulnerability indicates there may be additional source water protection measures which can be implemented on the local level. This does not imply that the source water is contaminated, nor does it mean that contamination is imminent. Rather, it simply states that land use activities or hydrogeologic conditions exist that make the source water susceptible to possible future contamination. Further source water assessment information can be found on ADEQ's website: https://azdeq.gov/source-water-protection or email at sourcewaterprotection@azdeq.gov

Water Quality Monitoring

To ensure continued safety of the drinking water, MCAS Yuma tests your water weekly, monthly, and annually. In addition to monitoring for contaminants with established drinking water standards, the base also monitors for unregulated contaminants, which helps the U.S. Environmental Protection Agency (USEPA) determine where certain contaminants occur and whether such contaminants require regulation. Last year, MCAS Yuma performed water quality tests to evaluate compliance for over 100 different drinking water contaminants. All contaminants registered below detectable levels or below Maximum Contamination levels set by the USEPA; the table in the pamphlet provides a summary of these results.

General Information about Drinking Water

The sources of drinking water include rivers, reservoirs, 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. Some contaminants in source water may include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or may result from storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides 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, may also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or may be results of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the USEPA prescribes regulations limiting certain contaminants in water provided by public water systems. However, drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk. Some people may be more vulnerable than the general population to contaminants in drinking water. Immunocompromised persons, such as people with cancer undergoing chemotherapy, persons who have undergone organ transplants, other immune system disorders, elderly, and infants can be particularly at risk from infections. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to reduce the risk of infection from Cryptosporidium and other microbial sources are available the Safe Drinking Water Hotline (800-426-4791).

Per- and Polyfluoroalkyl substances (PFAS)

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 United States 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):

- perfluorooctane sulfonic acid (PFOS) = 4 ppt
- perfluorooctanoic acid (PFOA) = 4 ppt
- hexafluoropropylene oxide dimer acid (HFPO-DA, commonly known as GenX) = 10 ppt
- perfluorononanoic acid (PFNA) = 10 ppt
- perfluorohexane sulfonic acid (PFHxS) = 10 ppt
- HI MCL for PFHxS, PFNA, perfluorobutane sulfonic acid (PFBS), and GenX = 1 (unitless).

Under the NPDWR, regulated public water systems (PWS) 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.

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 Marine Corps Air Station Yuma tested its water for PFAS in 2024?

Yes. In June, August, and November of 2024 samples were collected from the Main Station Yuma's Water Treatment Plant Entry Point to the Distribution System. We are pleased to report that drinking water testing results for all 25 PFAS covered by the sampling method, including the six regulated PFAS, were all below the EPA regulated MCL

What is next?

Marine Corps Air Station Yuma's initial monitoring for PFAS in accordance with EPA requirements is complete. Based on these results, the installation has begun quarterly monitoring.

Lead in drinking water

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.

Marine Corps Air Station Yuma is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk.

Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water.

To address lead in drinking water, public water systems were required to develop and maintain an inventory of service line materials by Oct 16, 2024. Developing an inventory and identifying the location of lead service lines (LSL) is the first step for beginning LSL replacement and protecting public health. The lead service inventory may be viewed online at: https://pws.120wateraudit.com/inventory/list. Please contact us if you would like more information about the inventory or any lead sampling that has been done.

If you are concerned about lead in your water and wish to have your water tested, contact Mr. Ronald Kruse at ronald.kruse@usmc.mil or phone 928-269-3523. 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.

What If I Have Questions About My Drinking Water?

If you have questions about this report or your drinking water supply, please, contact Mr. Ronald L Kruse, Installation & Logistics Department, Public Works Director at (928) 269-3523. MCAS Yuma's Public Water System Identification (PWS ID) Number is AZ0414082. Copies of this report will be available at the Water Treatment Plant, Family Housing Office or at *https://www.mcasyuma.marines.mil/*.

Understanding the Language of Water

AL = ACTION LEVEL - THE CONCENTRATION OF A CONTAMINANT WHICH, IF EXCEEDED, TRIGGERS TREATMENT OR OTHER REQUIREMENTS.
MCL = MAXIMUM CONTAMINANT LEVEL - THE "MAXIMUM ALLOWED" IS THE HIGHEST LEVEL OF A CONTAMINANT THAT IS ALLOWED IN DRINKING WATER. MCL'S ARE SET AS CLOSE TO THE MCLGS AS FEASIBLE USING THE BEST AVAILABLE TREATMENT TECHNOLOGY.
MCLG = MAXIMUM CONTAMINANT LEVEL GOAL - THE "GOAL" IS THE LEVEL OF A CONTAMINANT IN DRINKING WATER BELOW WHICH THERE IS NO KNOWN OR EXPECTED RISK TO HEALTH.
MFL = MILLION FIBERS PER LITER. MRDL = MAXIMUM RESIDUAL DISINFECTANT LEVEL. MRDLG = MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL.
MREM = MILLIREMS PER YEAR – A MEASURE OF RADIATION ABSORBED BY THE BODY. NA = NOT APPLICABLE, SAMPLING WAS NOT COMPLETED BY REGULATION OR WAS NOT REQUIRED.
NTU = NEPHELOMETRIC TURBIDITY UNITS, A MEASURE OF WATER CLARITY. PCI/L = PICOCURIES PER LITER - PICOCURIES PER LITER IS A MEASURE OF THE RADIOACTIVITY IN WATER.
PPM = PARTS PER MILLION OR MILLIGRAMS PER LITER (MG/L).
PPB = PARTS PER BILLION OR MICROGRAMS PER LITER (µG/L).
PPT = PARTS PER TRILLION OR NANOGRAMS PER LITER.
PPQ = PARTS PER QUADRILLION OR PICOGRAMS PER LITER.
NG/L = NANOGRAM PER LITER

ppm x 1000 = ppb
ppb x 1000 = ppt
ppt x 1000 = ppq

TT = TREATMENT TECHNIQUE - A TREATMENT TECHNIQUE IS A REQUIRED PROCESS INTENDED TO REDUCE THE LEVEL OF A CONTAMINANT IN DRINKING WATER.
NON-DETECT - A NON-DETECT MEANS THE LAB DID NOT SEE THE ANALYTE OR THE QUANTITATIVE RESULT WAS LESS THAN THE LABORATORY'S LIMIT OF DETECTION

Contaminant (units)	Violation Y / N	Running annual Average (RAA) or Highest Level Detected	Range Detected or (A) Absent / (P) Present	MCL	MCLG	Sample Month Year	Likely Source of Contamination
Microbiological							
Total Coliform Bacteria (System takes ≤ 40 monthly samples)	No	0	A	Varies	0	7 per month	Naturally Present in Environment
Fecal coliform and E. Coli	No	0	A	0	0		Human and animal fecal waste
Turbidity (NTU), surface water only	No	0.243 (RAA)	Range 0.084 to 0.164	None	n/a	Daily	Soil Runoff - met turbidity compliance requirements for 100% of the year
Disinfectants							
Chlorine (ppm)	No	0.77 (RAA)	0.62 to 0.106	MRDL = 4	MRDLG = 4	Continuous	Water additive used to control microbes
Disinfection By-Products							
Haloacetic Acids (ppb) (HAA5)	No	14.0 (RAA)	10.0 to 19.0	60	n/a	Quarterly	Byproduct of drinking water disinfection
Total Trihalomethanes (ppb) (TTHM)	No	47 (RAA)	5 - 94	80	n/a	Quarterly	Byproduct of drinking water disinfection
Lead & Copper		90th Percentile Sites Above AL/Total Sites		Action Level			
Copper (ppm)	No	0.32 0/20	.0044 - 0.46	1.3	0	08/2024	Corrosion of household plumbing systems; erosion of natural deposits
Chromium	No	0-1.7	1.7	100	100		

Lead (ppb)	No	3 ppb 0/20	1.0 – 6.1	15	0	08/2024	Corrosion of household plumbing systems; erosion of natural deposits
Radionuclides							
Alpha emitters (pCi/L)	No	3.0	P	15	0	02/2024	Erosion of natural deposits
Combined Radium 226 & 228 (pCi/L)	No	0.344	P	5	0	02/2024	Erosion of natural deposits
Uranium (ppb)	No	4.7	P	30	0	02/2024	Erosion of natural deposits
Inorganics							
Chromium	No	1.7 ppb	0-1.7 ppb	100	100	04/2024	Erosion of natural deposits
Barium (ppm)	No	0.078	P	2.0	0	02/2024	Erosion of Natural deposits
Arsenic (ug/L)	No	1.7	1.2 to 1.7 ppb	10	0	4/2024	Erosion of natural deposits, runoff from orchards, runoff from glass & electronics production wastes
Nitrate (ppm)	No	1.2-2.2 ppm	P	10	0	*4/2024*	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Fluoride (ppm)	No	0.3-0.67 ppm	P	4.0	0	4/2024	Erosion of Natural deposits
Synthetic Chemical							
Di (2-ethylhexyl) phthalate	No	0.65 ppb	P	6	0	2/27/2024	Discharge from rubber and chemical factories
Special Monitoring Contaminants							
Sodium	No	230	P	N/A	0	4/2024	Erosion of Natural deposits
Monitoring Required by DOD (PFOS/PFOA)							
Location		PFOS Results	PFOA Results	NL (HA)	PHG	Date	Typical Sources
Main Base – MCAS Yuma	No	0.88ppt	2.3ppt	70ppt	None	Quarterly	Industrial Use Chemical
Cannon Air Defense Complex	No	14ppt	8.7ppt	70ppt	None	Quarterly	Industrial Use Chemical
Martinez Lake	No	ND	ND	70ppt	None	Quarterly	Industrial Use Chemical

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for PWS ID 14082

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether our drinking water meets health standards.

What should I do?

Nothing needs to be done by you at this time.

The table below lists the untimely reports, or samples which were improperly tested during 2023 with explanations for each error, timeframes in which they occurred, and the corrective actions taken to remedy the error.

Violation Type	Explanation, Health Effects	Time Period	Corrective Actions
Failure to address a significant deficiency	This was a violation for submitting permits passed the required deadline given by ADEQ	Dec 2024	Ensure that all documents are submitted in the required timeframe. A spreadsheet has been established by Station Environmental for tracking purposes.
Missed monitoring	Turbidity samples were reported to have been taken, but 2 samples were missed	June 2024	Missed monitoring violation corrected by sampling and reporting sufficiently

Report generated in accordance with Arizona Administrative Code Title 18 Chapter 4 and Code of Federal Regulations Title 40 Section 141.153.