SHAW AIR FORCE BASE, SOUTH CAROLINA

CONSUMER CONFIDENCE REPORT (CCR)

Drinking Water Quality

1 January 2024 – 31 December 2024

SPECIAL POINTS OF INTEREST:

- Where our drinking water comes from
- Is my water safe?
- Do I need to take special precautions?
- Why are there contaminants in my drinking water?
- Water Consumption and Source Water Protection Tips
- Water Data Quality Table
- Contact names and numbers for questions or concerns

The 20th Operational Medical Readiness Squadron, Bioenvironmental Engineering (BE) Flight, informs consumers annually about the quality of their drinking water. This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. The CCR is a snapshot of last year's (2024) water quality. Shaw Air Force Base (AFB) receives its water from two (2) different aquifers which are the Upper and Lower Black Creek Aquifers. There are currently five (5) drinking water wells permitted by the South Carolina Department of Environmental Services (SCDES), which operate on Shaw AFB (System No. SC4310501). In November 2024, SCDES conducted a source water sanitary survey for Shaw AFB where there were no violations.

IS MY WATER SAFE?

We are pleased to report that Shaw AFB's water is safe and is in compliance with all Federal and State regulations. Shaw AFB is committed to providing its consumers information because informed consumers are our best allies.

DO I NEED TO TAKE SPECIAL 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, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. Environmental Protection Agency (EPA)/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline **(800-426-4791)**.

WHY ARE THERE CONTAMINANTS IN MY DRINKING WATER?

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 (EPA) Safe Drinking Water Hotline **(800-426-4791)**. 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: microbial contaminants, such as viruses and bacteria, that 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 storm water 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 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, and can also come from gas stations, urban storm water runoff, and septic systems; and radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The EPA Revised Total Coliform Rule protects public health by reducing potential pathways for fecal and microbial contamination into public drinking water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

HOW CAN I GET INVOLVED?

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Shut off water while brushing your teeth, washing your hair, and shaving. Doing so can save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.

- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.

- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

SOURCE WATER PROTECTION TIPS

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

Senior Airman Pattirose Samuels from the Bioenvironmental Engineering Flight analyzing water quality standards.

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No

Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

ADDITIONAL INFORMATION FOR LEAD

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems. A comprehensive inventory of service lines was conducted in 2024 to identify any containing lead. A memorandum detailing the findings has been distributed to facility managers. For more information regarding the installation's lead service line inventory and replacement plan, please call Shaw AFB Environmental Compliance office (803) 895-9978. To learn more about the installation's lead sampling program, please contact Bioenvironmental Engineering at (803) 895-6196 or email usaf.shaw.20-mdg.mbx.be@health.mil.

WATER QUALITY DATA TABLE

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. The term pesticide applies to insecticides, herbicides, fungicides, disinfectants and various other substances used to control pests. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. Unregulated contaminant monitoring is done to help the EPA determine where certain contaminants occur and whether the Agency should consider regulating those contaminants in the future. In this table you

will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Table 1. Data Water Quality Table

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Unregulated Contaminants								
Sodium (ppm)	NA	NA	33.0	5.0	33.0	2023	No	Erosion of natural deposits.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Inorganic Contaminants								
Nitrate [measured as Nitrogen] (ppm)	10	10	1.000	0.310	0.970	2024	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Radioactive Contaminants								
Radium (combined 226/228) (pCi/L)	0	5	1.163	0.310	1.163	2023	No	Erosion of natural deposits

Contaminants	MCLG	AL	Detected In Your Water	Sample Date	Range		Exceeds AL	Typical Source
					Low	High		
Inorganic Contaminants (required every three years, next sampling will be conducted 2026)								
Copper - action level at consumer taps (ppm)	1.3	1.3	0.037	2023	0.0032	0.11	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	0.21	2023	0	0.28	No	Corrosion of household plumbing systems; Erosion of natural deposits

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Volatile Organic Contaminants								
Trichloroethylene (ppb)	0	5	2.000	1.800	2.080	2024	No	Discharge from metal degreasing sites and other factories

Violations or Exceedances

None.

There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Disinfection							
Disinfectant (unit of measure)	**MCLG or MRDLG**	**MCL, TT, or MRDL**	**Detect in Your Water**	**Range**	**Violation (Yes or No)**	**Sample Date**	**Typical Source**
Chlorine (ppm)	4	4	1.000	1.000 - 1.000	No	2024	Water additive used to control microbes

ADDITIONAL MONITORING

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 industrial 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, food packaging, and cookware. They are also contained in some fire-fighting foams such as aqueous film-forming foam, or AFFF, used for fighting petroleum fires.

Is there a regulation for PFAS in drinking water?
Yes. On April 26, 2024, the Environmental Protection Agency (EPA) published a final National Primary Drinking Water Regulation for certain per- and polyfluoroalkyl substances (PFAS) under the Safe Drinking Water Act (SDWA). This rule went into effect on June 25, 2024 with a compliance deadline of April 26, 2029, five years from the date up publication. While the rule requires routine sampling for certain PFAS by no later than 2027, DoD has been sampling drinking water for PFAS compounds at all DoD-owned and operated water systems since 2017. Under the new rule, the following limits, called Maximum Contaminant Levels (MCL), were established, and DoD water systems will need to meet these levels by April 2029. For systems where DoD provides drinking water,

the Department is collecting the necessary sampling information and is taking actions to ensure compliance within the required 5-year timeframe.

Has Shaw Air Force Base tested its water for PFAS?
Yes. Monthly PFAS samples were collected from Wells 4, 5 and 6 in 2024.

PFAS Detected Below MCL.
We are informing you that drinking water testing results were below the MCL for all 6 PFAS compounds covered by the EPA drinking water rule, including PFOA and PFOS. The water system will be periodically resampled as required by the EPA PFAS drinking water rule to ensure continued compliance.

PFOA. Some people who drink water containing PFOA in excess of the MCL over many years may have increased health risks such as cardiovascular, immune, and liver effects, as well as increased incidence of certain types of cancers including kidney and testicular cancer. In addition, there may be increased risks of developmental and immune effects for people who drink water containing PFOA in excess of the MCL following repeated exposure during pregnancy and/or childhood.

PFOS. Some people who drink water containing PFOS in excess of the MCL over many years may have increased health risks such as cardiovascular, immune, and liver effects, as well as increased incidence of certain types of cancers including liver cancer. In addition, there may be increased risks of developmental and immune effects for people who drink water containing PFOS in excess of the MCL following repeated exposure during pregnancy and/or childhood.

PFNA. Some people who drink water containing PFNA in excess of the MCL over many years may have increased health risks such as elevated cholesterol levels, immune effects, and liver effects. In addition, there may be increased risks of developmental effects for people who drink water containing PFNA in excess of the MCL following repeated exposure during pregnancy and/or childhood.

PFHxS. Some people who drink water containing PFHxS in excess of the MCL over many years may have increased health risks such as immune, thyroid, and liver effects. In addition, there may be increased risks of developmental effects for people who drink water containing PFHxS in excess of the MCL following repeated exposure during pregnancy and/or childhood.

HFPO-DA. Some people who drink water containing HFPO-DA in excess of the MCL over many years may have increased health risks such as immune, liver, and kidney effects. There is also a potential concern for cancer associated with HFPO-DA exposure. In addition, there may be increased risks of developmental effects for people who drink water containing HFPO-DA in excess of the MCL following repeated exposure during pregnancy and/or childhood.

Hazard Index. Per- and polyfluoroalkyl substances (PFAS) can persist in the human body and exposure may lead to increased risk of adverse health effects. Low levels of multiple PFAS that individually would not likely result in increased risk of adverse health effects may result in adverse health effects when combined in a mixture. Some people who consume drinking water containing mixtures of PFAS in excess of the Hazard Index (HI) MCL may have increased health risks such as liver, immune, and thyroid effects following exposure over many years and developmental and thyroid effects following repeated exposure during pregnancy and/or childhood.

Table 2. 2024 PFOA/PFOS Sampling Results

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Range		Average	Sample Date	Violation
			Low	High			
Perfluorooctanesulfonic acid (PFOS) (ppb)	0	0.004	ND	0.014	0.003611	2024	No
Perfluorooctanoic acid (PFOA) (ppb)	0	0.004	ND	0.05	0.004723	2024	No
Perfluorohexanesulfonic acid (PFHxS) (ppb)	0.01	0.01	ND	0.072	0.009271	2024	No
Perfluorononanoic acid PFNA (ppb)	0.01	0.01	ND	0.002	0.001915	2024	No
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) (ppb)	0.01	0.01	ND	0.002	0.001912	2024	No

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Range		Average	Sample Date	Violation
			Low	High			
Hazard Index (HI)(unitless)	1	1	N/A		1.3	2024	No

Unit Descriptions	
Term	**Definition**
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
ppt	ppt: parts per trillion, or nanograms per liter
HI	Mixtures containing two or more of PFHxS, PFNA, HFPO-DA, and PFBS
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
% positive samples/month	% positive samples/month: Percent of samples taken monthly that were positive
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required but recommended.

Important Drinking Water Definitions	
Term	**Definition**

Important Drinking Water Definitions	
MCLG	MCLG: Maximum Contaminant Level Goal: 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.
MCL	MCL: Maximum Contaminant Level: 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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. 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 contaminants.
MRDL	MRDL: Maximum residual disinfectant level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

Point of Contact(s):

If you would like any additional information in regard to sanitary surveys and/or routine water sampling, please contact the Bioenvironmental Engineering Flight. For more

information from the Water System Operator, contact Civil Engineering at **(803) 895-5171**.

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