

Marine Corps Air Station Cherry Point

2023 Biannual Water Quality Report (PWSID NC0425035)

Is my water safe?

Marine Corps Air Station Cherry Point presents the Biannual Water Quality Report (Consumers Confident Report) as required by America's Water Infrastructure Act of 2018 and the Department of the Navy Memorandum dated February 19, 2021. This report is designed to provide details about the Air Station's water, its source, its contents, and how it compares to standards set by regulatory agencies. This report is a snapshot of water quality from January 1 to June 30, 2023. The annual report required by the Safe Drinking Water Act will be available in May 2024.

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 individuals with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune systems 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. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available and may be obtained by calling the Safe Drinking Water Hotline (800-426-4791).

Where does my water come from?

The source of Cherry Point's drinking water is groundwater from the Castle Hayne Aquifer. Water is removed from 31 wells at depths of 195-329 feet below the surface. The source water is pumped to the new nano-membrane water treatment plant, which was placed online in February 2021. Groundwater is pumped through strainers to remove sand and silt particles. The flow then splits into a bypass treatment train and a membrane treatment train which are monitored and blended by certified operators. In the bypass train, the water is disinfected and filtered to remove iron and manganese. The membrane train consists of cartridge filters and nanofiltration skids designed to remove naturally occurring organic material from the water. Booster pumps then send the water through air strippers that remove carbon dioxide and optimize pH balance. Final pH balance and hardness adjustments are made, along with disinfection, before the water is blended with bypass water. The treated water is then pumped to water storage tanks. Finally, the finished water is distributed through piping to consumers.

Source water assessment and its availability

North Carolina Department of Environmental Quality conducted an assessment of source water wells that provide water to MCAS Cherry Point potable water treatment plant. The report was updated September 10, 2020 and can be viewed online by entering the systems permit number (NC0425035) in the search box at <http://www.ncwater.org/?page=600>.

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 substances. The presence of substances does not necessarily indicate that water poses a health risk. Information about 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 and human activity. Industrial processes, pesticide and herbicide applications, farming, petroleum production/spills, are additional sources. Microbial substances such as viruses and bacteria, that come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife can also impact the source water. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain substances in water provided by public water systems. Food and Drug Administration regulations establish limits for substances in bottled water which must provide the same protection for public health.

Water Conservation Tips

The average U.S. household uses approximately 400 gallons of water daily or 100 gallons per person, per day. Below is a list of ways to conserve this natural resource.

- Take short showers. Five-minute shower uses four to five gallons of water.
- Shut off water while brushing teeth, washing hair, and shaving.
- Run dish and cloth washers only when full.
- Fix leaky toilets and faucets.
- Adjust sprinklers so only the lawn is watered. Apply water only as fast as the ground can absorb it and only during the cooler parts of the day.
- Teach children about water conservation. Make an effort to reduce the water bill.
- Visit www.epa.gov/watersense for more information.

Cross-Connection Control Survey

The purpose of this survey is to determine whether a cross-connection exists at your home or facility. A cross-connection is an unprotected or improper connection to a public water distribution system that can cause a substance to backflow into the finished water being provided for consumption. Cherry Point Public Works Department is responsible for enforcing cross-connection control regulations. If there are potential cross-connections at your facility or home, contact Robert Godwin (252) 466-2520 to assess the connection. Examples include:

- Connections to boilers and chemical processing equipment/tanks
- Outside hoses and water taps attached to chemical sprayers
- Outside hoses submerged in swimming pools
- Improperly installed toilet valves
- Connections to irrigation systems, fire systems, and air conditioning systems

Source Water Protection Tips

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

- Eliminate excess use of lawn/garden fertilizers and pesticides.
- Pick up after your pets.
- Properly maintain septic systems – notify Public Works 466-5874 for issues.
- Properly dispose of chemicals.

Additional Information for 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 water has been sitting for several hours, minimize the potential for lead exposure by flushing the tap for 30-120 seconds before using water for drinking or cooking. Information on lead in drinking water and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Questions?

For additional information regarding this report or questions about your drinking water, contact Stephanie Mills of the Environmental Affairs Department at (252) 466-2754.

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of substances in water provided by public water systems. MCAS Cherry Point water is monitored for various substances on a schedule determined by the state of North Carolina. The table below lists drinking water substances that were detected from January to June 2023. For substance that are tested less frequently than every six months the date that substance was detected is annotated. Detecting a substance does not mean the water is unsafe to drink. In the event a substance is detected above the Maximum Contaminate Level (MCL), the water system would receive a violation requiring public notice to consumers. All sources of drinking water contain naturally occurring substances, which at low levels are generally not harmful in drinking water. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, the definitions are provided below the table.

Disinfectants	MRDLG	MRDL	Highest Detected Amount	Range of Detected Amounts	Sample Schedule	Drinking Water Violation	Typical Source
Chlorine (ppm)	4	4	2.09	0.54 to 2.09	Monthly	No	Water additive used to control microbes
Disinfection By-products	MCLG	MCL	Highest LRAA	Range of Quarterly LRAA Values	Sample Schedule	Drinking Water Violation	Typical Source
Haloacetic Acids (HAAS) (ppb)	NA	60	23	19 to 23	Annual (2022)	No	By-product of drinking chlorination
Total Trihalomethane (TTHM) (ppb)	NA	80	24	20 to 24	Annual (2022)	No	By-product of drinking chlorination
Inorganic Compounds	MCLG	MPL or AL	Highest Detected Amount	Number of Sites with Results Greater than AL	Sample Date	Drinking Water Violation	Typical Source
Iron (ppm)	NA	0.3 (MPL)	0.061	NA	6-May-21	No	Erosion of natural deposits leaching
Sodium (ppm)	NA	NA	6.58	NA	6-May-21	No	Erosion of natural deposits leaching
Copper (ppm)	1.3	1.3(AL)	0.209	0	13-May-21	No	Corrosion of household plumbing; erosion of natural deposits
Lead (ppb)	0	15(AL)	5	0	13-May-21	No	Corrosion of household plumbing; erosion of natural deposits; lead service lines

Term	Definition
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements.
LRAA	Locational Running Annual Average: Calculated average value of quarterly results for the past year. Used as the compliance measure for disinfection by-products.
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.
MCLG	Maximum Contaminant Level Goal: The level of a substance in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MNR	Monitored Not Regulated
MPL	Maximum Permissible Level: State assigned level for which exceedance requires operational adjustments.
MRDL	Maximum Residual Disinfection Level: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG	Maximum Residual Disinfection Level Goal: The level of a drinking water disinfectant below which there are no known or expected risk to health. MRDLG do not reflect the benefits of the use of disinfectants to control microbial contaminants.
NA	Not Applicable
ND	Not Detected
NR	Monitoring not required but recommended
ppb	parts per billion or micrograms per liter (ug/L)
ppm	parts per million or milligrams per liter (mg/L)
TT	Treatment Technique: A required process intended to reduce the level of a contaminant.
Variances/ Exemptions	State or EPA permission not to meet an MCL or Treatment Technique under certain conditions.