2022 ANNUAL CONSUMER CONFIDENCE REPORT
WATER QUALITY

NAVAL AIR STATION, MERIDIAN
NAVFAC SE, DETACHMENT, PUBLIC WORKS DEPARTMENT
Water Treatment Facility - MSDH PWS ID # 0380026
229 Allen Road Meridian, MS 39309 (Lauderdale County)

MAY 3, 2023

We are pleased to present our **2022 Annual Consumer Confidence Report for Water Quality** as required by the Safe Drinking Water Act (SDWA) for the consumers of **Naval Air Station (NAS), Meridian**. We are proud to announce there are no violations to report and all sample test results are within required specifications. This report is a snapshot of our water quality and provides you with details about where it comes from and what it may contain. We are committed to ensuring the quality of your water is within the safe drinking water limits, as set forth by the Mississippi State Department of Health (MSDH) and the Environmental Protection Agency (EPA). We are continually striving to improve the water treatment process and to protect our water resources. The MSDH and the Certified Operators of NAS Meridian periodically monitors for more than 86 different organic and inorganic contaminants routinely and periodically, per Federal and State statutes, rules, and regulations.

We want to keep you informed and up to date, about the water quality and service we provide. For your review, the **2022 Water Quality Data Table** below contains the results of our sample testing for contaminants between **January 1 to December 31, 2022,** unless otherwise noted. The EPA and MSDH has a set schedule for some test samples, others are routine daily or monthly testing. All results are reported using the most recent test results available. No test results in this report are more than five years old. For a brief explanation of terms, abbreviations or for definitions, see the reference table at the end.

In order to ensure that tap water is safe to drink, EPA prescribes regulations for allowable limits for contaminants in water provided by public water systems, as all sources of drinking water, both tap water and bottle water, including all bodies of water and man-made wells contain traces of naturally occurring or manmade contaminants. As water travels it dissolves naturally-occurring minerals and may pick up substances or contaminants such as microbes, inorganic and organic compounds, and very rarely, radioactive substances. Most contaminants are detected at extremely low levels and typically are not considered to be harmful; such as fluoride, sodium, and potassium, which adds nutritional value and improves the taste.

Our water is sourced by the **Wilcox Aquifer** and treated in a "treatment train" (a series of processes applied in a sequence) that includes coagulation, flocculation, sedimentation, filtration, and disinfection. Coagulation removes dirt and other particles suspended in the source water by adding chemicals (coagulants) to form tiny sticky particles called "floc," which attract the dirt particles. Flocculation (the formation of larger flocs from smaller flocs) is achieved using gentle, constant mixing. The heavy particles settle naturally out of the water in a sedimentation basin. The clear water then moves to the filtration process where the water passes through sand, gravel, charcoal or other filters that remove even smaller particles. A small amount of chlorine or other disinfection method is used to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water before water is stored and distributed throughout NAS Meridian and Base Housing. Our source water assessment has been conducted and the results are available at the office. **If you would like to learn more about these reports or have any concerns about the quality of your water, please contact: William D. Chisolm or Merrilu Hurtt at (601) 679-2151, 0600-1630, Mon. – Fri.**

If you have any questions or concerns, please contact Deputy Public Works Officer - (601) 679-2940 or Maintenance Supervisor - (601) 679-2530. We ask that all our consumers help us preserve and protect our water sources, which are the heart of our community, our way of life, and our children's future.

Sincerely,

BRITT COOPER
Deputy Public Works Officer,
Water Plant Owner of Record

2022 WATER QUALITY DATA TABLE

DETECTED CONTAMINANTS	MCLG or MRDLG	MCL, TT, or MRDL	Level Detected	Range Low	Range High	Sample Date	Violation	Typical Source
REGULATED DISINFECTANTS OR BY-PRODUCTS (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (12.5%, NSF Chlorine Bleach)	NA	4	1.9	1.2	2.2	2022	No	Additive used to disinfect water by eliminating microbial contaminants.
Haloacetic Acids (HAA5) (ppb)	NA	60	6.42	NA	NA	2022	No	By-product of drinking water chlorination.
TTHMs [Total Trihalomethanes] (ppb)	NA	80	12.1	NA	NA	2022	No	By-product of drinking water disinfection.
REGULATED INORGANIC CONTAMINANTS								
Barium (ppm)	2	2	.0414	NA	NA	2022	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride (ppm)	4	4	.867	NA	NA	2022	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from local agriculture or manufacturers.
REGULATED RADIOACTIVE CONTAMINANTS								
Alpha emitters (pCi/L)	0	15	.9	NA	NA	2019	No	Erosion of natural deposits
Radium (combined 226/228) (pCi/L)	0	5	1.22	NA	NA	2019	No	Erosion of natural deposits
REGULATED VOLATILE ORGANIC CONTAMINANTS								
Ethylbenzene (ppb)	700	700	7.206	NA	NA	2018	No	Volatile organic compounds; or Discharge from petroleum refineries.
Xylenes (ppm)	10	10	.049138	NA	NA	2018	No	Discharge from petroleum factories; Discharge from chemical factories.

DETECTED CONTAMINANTS	MCLG	AL	Level Detected	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
REGULATED INORGANIC CONTAMINANTS							
Copper - action level at consumer taps (ppb)	0	1300	0	2021	0	No	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead - action level at consumer taps (ppb)	0	15	3	2021	0	No	Corrosion of household plumbing systems; Erosion of natural deposits.

Sampling Procedures for Lead and Copper: Ten separate samples were taken from different parts of a water system and tested for Lead and Copper, to provide a complete picture of water quality. Results are calculated using the 90th percentile measurement method. Lead and copper values from each sample are taken, and the 10% of samples with the **highest** amounts of lead or copper are averaged. This average of the highest tenth percentile is reported as the measure of lead or copper for the system and determines whether action needs to be taken to lower lead or copper levels in the water.

DETECTED CONTAMINANTS	State MCL	Level Detected	Violation	Explanation and Comment
***UNREGULATED INORGANIC CONTAMINANTS**				
Nickel (ppb)	100	7	No	Naturally occurring in ground water; Erosion of natural deposits.
Sodium (ppm)	NA	7.39	No	Erosion of natural deposits; Leaching.

***Monitoring of Unregulated Contaminants** - Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

2022 WATER QUALITY DATA TABLE

NOT DETECTED CONTAMINANTS	MCLG or MRDLG	MCL, TT, or MRDL	Water Sample Results	Violation	Typical Source
UNDETECTED REGULATED AND UNREGULATED CONTAMINANTS (The following contaminants were monitored for, but were not detected in any sample testing.)					
1,1,1-Trichloroethane (ppb)	200	200	ND	No	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)	3	5	ND	No	Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)	7	7	ND	No	Discharge from industrial chemical factories
1,2,4-Trichlorobenzene (ppb)	70	70	ND	No	Discharge from textile-finishing factories
1,2-Dichloroethane (ppb)	0	5	ND	No	Discharge from industrial chemical factories
1,2-Dichloropropane (ppb)	0	5	ND	No	Discharge from industrial chemical factories
Antimony (ppb)	6	6	ND	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
Arsenic (ppb)	0	10	ND	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Benzene (ppb)	0	5	ND	No	Discharge from factories; Leaching from gas storage tanks and landfills
Beryllium (ppb)	4	4	ND	No	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries.
Cadmium (ppb)	5	5	ND	No	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints.
Carbon Tetrachloride (ppb)	0	5	ND	No	Discharge from chemical plants and other industrial activities
Chlorobenzene (ppb)	100	100	ND	No	Discharge from chemical and agricultural chemical factories
Chromium (ppb)	100	100	ND	No	Discharge from steel and pulp mills; Erosion of natural deposits.
Cyanide (ppb)	200	200	ND	No	Naturally occurring in ground water; erosion of natural deposits.
Mercury [Inorganic] (ppb)	2	2	ND	No	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland.
Nitrate [measured as Nitrogen] (ppm)	10	10	ND	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite [measured as Nitrogen] (ppm)	1	1	ND	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium (ppb)	50	50	ND	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Styrene (ppb)	100	100	ND	No	Discharge from rubber and plastic factories; Leaching from landfills
Thallium (ppb)	.5	2	ND	No	Discharge from electronics, glass, and leaching from ore-processing sites; drug factories.
Toluene (ppm)	1	1	ND	No	Discharge from petroleum factories
Uranium (ug/L)	0	30	ND	No	Erosion of natural deposits
Vinyl Chloride (ppb)	0	2	ND	No	Leaching from PVC piping; Discharge from plastics factories
Cis-1,2-Dichloroethylene (ppb)	70	70	ND	No	Discharge from industrial chemical factories
Cobalt (ppb)	2	2	ND	No	Emitted via air, land, or water from sources where it is used in the production of steel and other alloys; including Automotive repair.
Molybdenum (ppb)	2	2	ND	No	By-product of tungsten and copper production.
o-Dichlorobenzene (ppb)	600	600	ND	No	Discharge from industrial chemical factories.

DESCRIPTION OF IMPORTANT DRINKING WATER TERMS/DEFINITIONS	
Term	**Definition**
% positive samples/month	Percentage of samples taken, testing positive for that specific contaminant.
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
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 contaminant 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	State Assigned Maximum Permissible Level.
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.
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.
NA	Not applicable.
ND	Not detected.
NR	Monitoring not required, but recommended.
pCi/L	Picocuries per liter (a measure of radioactivity).
ppb	Parts per billion, or micrograms per liter (µg/L).
ppm	Parts per million, or milligrams per liter (mg/L).
ppq	Parts per quadrillion, or Picograms per liter (picograms/l).
ppt	Parts per trillion; or one gallon of contaminant per trillion gallons of water, or more specifically 8.34 pounds (weight of 1 gallon of water) of contaminant per trillion gallons of water.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
ug/L	Number of micrograms of substance in one liter of water.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

HELPFUL WATER TIPS:

WATER TIP # 1 - 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.

- Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and 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.

WATER TIP # 2 - Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- 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:

HEALTH INFORMATION: The presence of contaminants does not necessarily indicate that water poses a health risk. However, some people may be more vulnerable to contaminants in drinking water than the general population, such as, immune-compromised persons with cancer or 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, and may need to seek advice about drinking water from their health care providers.

For further information about contaminants and potential health side effects, call the **EPA's Safe Drinking Water Hotline (1-800-426- 4791)**. In addition, EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available through the Safe Water Drinking Hotline.

INFORMATION ON ARSENIC: Your drinking water is fully within EPA's quality standards and safe to consume. We have not detected arsenic in your water. We continuously monitor and test for this contaminant as a precaution and to be in compliance with Federal rules and regulations as set forth by the EPA. Research regarding the health effects of low levels of arsenic is ongoing by the EPA, as this mineral is known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

INFORMATION ON LEAD: Your drinking water is fully within EPA's quality standards and safe to consume. We have not detected Lead in your water. We continuously monitor and test for this contaminant as a precaution and to be in compliance with Federal rules and regulations as set forth by the EPA. This notice is for legal purposes only. 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. Naval Air Station, Meridian Water Department 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 www.epa.gov/safewater/lead. If you wish to have your water tested for lead, please contact the Mississippi State Department of Health Public Health Laboratory (601) 576-7582. A test fee of $10 applies per sample.

INFORMATION ON FLUORIDE:

To comply with the "Regulation Governing Fluoridation of Community Water Supplies", Naval Air Station, Meridian is required to report certain results pertaining to fluoridation of our water system. The number of months in the previous calendar year in which average fluoride sample results were within the optimal range of 0.7 - 1.3 parts per million (ppm) was 12. The percentage of fluoride samples collected in the previous calendar year that was within the optimal range of 0.7 - 1.3 ppm was 100%.