



Issued in June 2022

An annual water quality report on the source, treatment and water provided by Naval Air Station Kingsville Water System PWS ID # 1370003.



**OUR DRINKING WATER
MEETS OR EXCEEDS
STATE AND FEDERAL
(EPA) DRINKING WATER
REQUIREMENTS**



This report is for the period of January 1 to December 31, 2021 unless otherwise noted. It is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

Our Drinking Water is Regulated

All drinking water may contain contaminants: Drinking water, including bottled water, may reasonably be expected to contain small amounts of contaminants. Presence of contaminants does not necessarily indicate a health risk. For more information about contaminants and potential health effects call the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

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. FDA regulations establish limits for contaminants in bottled water which must provide for the same protection for public health.

Information About Your Drinking Water

Special notice for the ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS or other immune problems: You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders, can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care providers. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline (800-426-4791).

Source of drinking 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.

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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Organic 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.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture or urban storm water runoff, and residential uses.
- **Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondary contaminants are not required to be reported in this document but they may greatly affect the appearance and taste of your water. For more information on taste, odor, or color of drinking water, please contact Albert Guajardo Sr., Environmental Protection Specialist at (361) 516-6102.

Definitions and Abbreviations

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

Action Level Goal (ALG): The Level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Gross Alpha (No Abbreviation): Gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222, and uranium.

Level 1 Assessment:: A level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

MFL: Million fibers per liter (a measure of asbestos)

mrem: millirems per year (a measure of radiation absorbed by the body).

Not Applicable (na): Does not apply or not available.

NTU: Nephelometric turbidity units (a measure of turbidity)

pCi/L: Picocuries per liter (a measure of radioactivity)

ppb: parts per billion or micrograms per liter – or one ounce in 7,350,000 gallons of water.

ppm: parts per million or milligrams per liter - or one ounce in 7,350 gallons of water.

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

Maximum Contaminant Level or 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 Residual Disinfectant Level Goal or 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 contaminants.

Maximum Residual Disinfectant Level or MRDL: 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.

ppq: parts per quadrillion, or picograms per liter (pg/L)

ppt: parts per trillion, or nanograms per liter (ng/L)

PWS ID#: Public Water System Identification Number

TT Treatment Technique: A required process to reduce the level of a contaminant in drinking water.

ug/L: micrograms per liter of water. One thousands micrograms per liter is equivalent to 1 milligram per liter. This measure is equivalent to parts per billion (ppb)

Violation (No Abbreviation): Failure to meet a Drinking Water Quality Regulation.

Information About Purchased Blended Water Source

Naval Air Station (NAS) Kingsville public water system purchases treated drinking water from the City of Kingsville. This source is made up of a blended mix of mainly groundwater and some surface water. These sources are produced through seven (7) active wells that make up approximately 85% of the water source extracted from the Goliad Sands Aquifer located in Kleberg County. The other 15% is purchased surface water from South Texas Water Authority (STWA), which comes from Corpus Christi Lake and Choke Canyon.

| Inorganic Contaminants | Collection Date | Highest Level or Average Detected | Range of Individual Samples | MCLG | MCL | Units | Violation | Likely Source of Contaminants |
|------------------------|-----------------|-----------------------------------|-----------------------------|------|-----|-------|-----------|---|
| Arsenic | 2021 | 6.4 | 5.6 - 6.4 | 0 | 10 | ppb | N | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes. |

While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

| | | | | | | | | |
|--------------------------------|------|--------|-----------------|-----|-----|-----|---|--|
| Barium | 2021 | 0.0291 | 0.0291 - 0.0291 | 2 | 2 | ppm | N | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural |
| Cyanide | 2021 | 40 | 40 - 40 | 200 | 200 | ppb | N | Discharge from plastic and fertilizer factories; Discharge from steel/metal factories. |
| Fluoride | 2021 | 0.56 | 0.56 - 0.56 | 4 | 4.0 | ppm | N | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Nitrite [measured as Nitrogen] | 2021 | 0.05 | 0 - 0.05 | 1 | 1 | ppb | N | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |
| Selenium | 2021 | 9.7 | 9.7 - 9.7 | 50 | 50 | ppb | N | Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines. |

| Radioactive Contaminants | Collection Date | Highest Level or Average Detected | Range of Individual Samples | MCLG | MCL | Units | Violation | Likely Source of Contamination |
|--------------------------|-----------------|-----------------------------------|-----------------------------|------|-----|--------|-----------|---|
| Beta/photon emitters | 2020 | 11.5 | 8.2 - 11.5 | 0 | 50 | pCi/L* | N | Decay of natural and man-made deposits. |

*EPA considers 50 pCi/L to be the level of concern for beta particles.

| | | | | | | | | |
|---|------|------|-------------|---|----|-------|---|------------------------------|
| Gross alpha excluding radon and uranium | 2021 | 8 | 4 - 8 | 0 | 15 | pCi/L | N | Erosion of natural deposits. |
| Uranium | 2021 | 12.4 | 10.8 - 12.4 | 0 | 30 | Ug/l | N | Erosion of natural deposits. |

NAVAL AIR STATION KINGSVILLE PWS ID # 1370003

The Texas Commission on Environmental Quality (TCEQ) completed an assessment of your source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact Albert Guajardo at (361) 516-6102.

Chloramine Disinfection: Naval Air Station Kingsville Public Water System uses chloramines as a disinfectant. They have been used in municipal water supply treatment since the 1930s. Chloramines are produced when a small amount of ammonia is added to chlorine. Chloramines are a weaker disinfectant than chlorine, but are more stable, thus extending the disinfecting benefits throughout the distribution system.

Benefits of chloramines:

- It is not as reactive as chlorine with organic material in water which produces a lower concentration of disinfection byproducts.
- Chloramine residual is more stable and longer lasting than free chlorine, and therefore offers better protection against bacterial regrowth in systems with large storage tanks and dead-end mains.

Chloramines do not tend to react with organic compounds, so many systems experience fewer incidences of taste and odor control.



Disinfectant Residual Table

| Year | Disinfectant | Average Level | Range of Levels Detected | MRDL | MRDLG | Unit of Measure | Source of chemical |
|------|---------------------|---------------|--------------------------|------|-------|-----------------|---|
| 2021 | Chloramines (Total) | 1.65 | 0.50 - 3.94 | 4.0 | 4.0 | ppm | Water additive (Disinfectant) used to control microbes. |

This is a summary of water quality data for the Naval Air Station Kingsville Public Water System. The list includes parameters which NASK currently tests for, in accordance with Federal and State Water Quality Regulations. The frequency of testing varies depending on the parameters and are in compliance with established standards.

Some specific chemical contaminants such as Beta/photon emitters or Gross alpha excluding radon and uranium are unlikely to change significantly with time. Such contaminants are tested within fairly long intervals and are listed below with the most current information.

Lead and Copper

90th Percentile Level– This is the value obtained after disregarding 10% of the samples taken that had the highest levels. (For example, in a situation in which 10 samples were taken, the 90th percentile level is determined by disregarding the highest result which represents 10% of the samples.) Note: In situations in which only 5 samples are taken, the average of the two with the highest levels is taken to determine the 90th percentile level.

| Contaminant | Date Sampled | MCLG | Action Level (AL) | 90th Percentile | # Sites Over AL | Units | Violation | Likely Source of Contamination |
|-------------|--------------|------|-------------------|-----------------|-----------------|-------|-----------|---|
| Copper | 2019 | 1.3 | 1.3 | 0.13 | 0 out of 10 | ppm | N | Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems. |
| Lead | 2019 | 0 | 15 | 2.8 | 0 out of 10 | ppb | N | Corrosion of household plumbing systems; Erosion of natural deposits. |

NAS Kingsville currently has a required lead and copper tap sampling frequency of every 3 years.

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. 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. 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>.

NAS Kingsville 2021 Water Quality Test Results

| Disinfectants and Disinfection By-products | Collection Date | Highest Level or Average Detected | Range of Individual Samples | MCLG | MCL | Units | Violation | Likely Source of Contamination |
|--|-----------------|-----------------------------------|-----------------------------|-----------------------|-----|-------|-----------|--|
| Haloacetic Acids (HAA5)* | 2021 | 16 | 1.6 - 45.6 | No goal for the total | 60 | ppb | N | By-product of drinking water disinfection. |
| Total Trihalomethanes (TTHM) * | 2021 | 37 | 5.1 - 78.7 | No goal for the | 80 | ppb | N | By-product of drinking water disinfection. |

*The value in the Highest Level or Average Detected column is the highest average of all TTHM and HAA5 sample results collected at a location over a year.

NAS KINGSVILLE WATER QUALITY TEST RESULTS

| Inorganic Contaminants | Collection Date | Highest Level or Average Detected | Range of Individual Samples | MCLG | MCL | Units | Violation | Likely Source of Contamination |
|------------------------------------|-----------------|-----------------------------------|-----------------------------|------|-----|-------|-----------|--|
| Nitrate* [measured as Nitrogen] | 2021 | 3 | 3 - 3 | 10 | 10 | ppm | N | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |

*Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, seek advice from your health care provider.

**For more information regarding
 this report, contact:
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