

NAVAL AIR STATION KINGSVILLE DRINKING WATER QUALITY



CONSUMER CONFIDENCE REPORT FOR CALENDAR YEAR 2016

PWS ID Number: 1370003
PWS Name: Naval Air Station Kingsville

NAVAL AIR STATION KINGSVILLE



OUR DRINKING WATER
MEETS ALL REQUIREMENTS
OF THE SAFE
DRINKING WATER ACT



ANNUAL WATER QUALITY REPORT (AS OF JUNE 2017)

This report is for the period of January 1 to December 31, 2016 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.

Since the system is not considered vulnerable to certain types of contamination; some of our data, though representative, may be more than one year old. Violations and Enforcement Actions, if any, are also included in this report.

Espanol (Spanish)

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en espanol, favor de llamar al telefono (361) 516-6102.

Information on Sources of 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.

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 EPA's Safe Drinking Water Hotline at (800) 426-4791.

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.
- **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 or urban storm water runoff.
- **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.
- **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 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.

Special Precautions For Some People

Do I need to take special precautions?

Some people 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).

Information about Source Water Assessments

A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies.

For more information about your sources of water, please refer the Source Water Assessment Viewer available at the following URL: <http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=>

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW>

Information about secondary contaminants

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 the Albert Guajardo Sr., Environmental Protection Specialist at (361) 516-6102.

Where Does My Water Come From?

Naval Air Station (NAS) Kingsville public water system serves approximately 1885 people with 460 connections. NAS Kingsville 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. The other 15% is purchased surface water from South Texas Water Authority (STWA), which comes from Corpus Christi Lake and Choke Canyon.

Additional Information

In 2014, Naval Air Station Kingsville Public Works reduced its water utility operations and maintenance costs by eliminating the on-site water storage and pumping facilities and adding an additional connection point to the City of Kingsville. Additionally, the majority of water lines within the distribution system were upgraded and/or replaced. So by solely utilizing the City of Kingsville's capacity, both pressure and flows for domestic and fire suppression requirements for the base are achieved.

Water Quality Test Results

Terms & Abbreviations

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

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.

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.

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

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

Not Applicable (N/A): Does not apply or not available.

NTU: Nephelometric turbidity units (a measure of turbidity)

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

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

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

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

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

TT: Treatment Technique

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.

Other Explanations

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.

The following common scientific measures of substance in water may be difficult to envision.

The comparison listed below are presented to make them easier to understand.

Parts per million (ppm) or milligrams per liter (mg/l).

Examples:

One part per million is equivalent to one minute in two years;
or a single penny in ten thousand dollars.

Parts per billion (ppb) or micrograms per liter (ug/L).

Examples:

One part per billion corresponds to one minute in two thousand years;
Or a single penny in ten million dollars.

Parts per trillion (ppt) or Nanograms per liter (ng/l).

Examples:

One part per trillion corresponds to one minute in two million years; Or a single penny in \$10,000,000,000.



Test Results

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 fluoride or arsenic are unlikely to change significantly with time. Such contaminants are tested within fairly long intervals and are listed below with the most current information.

Disinfectant Residual Table

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of chemical
2016	Chloramines (Total)	1.96	0.53	3.95	4.0	<4.0	ppb	Water additive (Disinfectant) used to control microbes.

Regulated Contaminants Detected

Lead and Copper

Definitions:

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

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

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.

Year	Contaminant	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
8/12/2016	Copper	1.3	1.3	0.32	0 out of 10	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
8/12/2016	Lead	0	15	1.1	0 out of 10	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

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. We 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 <http://www.epa.gov/safewater/lead>.

Total Coliform

Coliform Organisms are bacteria commonly found in humans, animals, and the environment. Their presence in drinking water indicates that conditions in the water system can support the existence of disease-causing pathogens. Coliform bacteria may not cause illness, but they indicate that conditions are suitable for the existence of other microbes that can cause illness. Pathogenic contamination is the greatest health risk to consumers who obtain their water from a Public Water System. In Texas, every Public Water System is required to disinfect the water to kill (inactivate) pathogens.

Regulated Contaminants

Year	Contaminant	Maximum Allowable (MCL)	Highest No. of Positive	Fecal Coliform or E. Coli MCL	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
2016	Total Coliform Bacteria	5% Positive per Month	0	0	0	N	Naturally present in the environment.

Disinfectants and Disinfection By-products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2016	1.8	0 - 4.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM) *	2016	28.7	3.1 - 48	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

***Note:**

The Highest Level Detected is the “highest locational running annual average.” A locational running annual average is the average of individual results for each quarter for the latest four quarters.

The Range of Levels Detected includes the range from the individual quarterly results.

Regulated Contaminants Cont.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	4/20/11	2.28	2.28 - 2.28	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	4/20/11	0.09	0.09 - 0.09	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	4/20/11	3.52	3.52 - 3.52	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	4/20/11	0.27	0.27 - 0.27	4	4	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2016	2.15	2.15 - 2.15	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	4/20/11	3.92	3.92 - 3.92	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Thallium	4/20/11	0.066	0.066-0.066	0.5	2	ppb	N	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories.

Arsenic– While your drinking water meets EPA standards for arsenic; it does contain low levels of arsenic. EPA 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.

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

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	8/8/2013	8.5	8.5 - 8.5	0	50	pCi/L*	N	Decay of natural man-made deposits.
Gross alpha excluding radon and uranium	8/8/2013	7.7	7.7 - 7.7	0	15	pCi/L*	N	Erosion of natural deposits.

Violations Table

Violation	Violation	Violation End	Violation Explanation
0	2016	2016	No violations.

Protecting Our Public Water System

Backflow Prevention

All potable water connections should have a backflow assembly device installed at the water connection. A backflow prevention assembly is a mechanical device that prevents the flow of water backwards through a pipe. Backflow prevention assemblies require annual testing to ensure they are properly protecting the water supply.

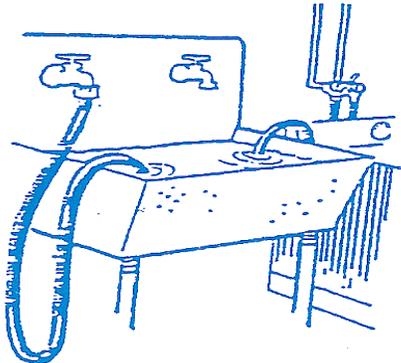
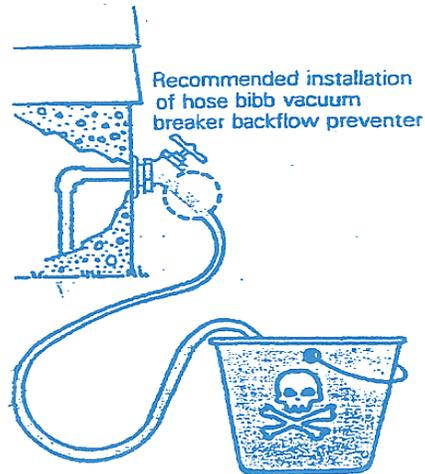
Cross Connection

A cross connection is a link between drinkable (or potable) water and any potential pollutant. Examples include:

- A hose in a bucket
- A hose with a sprayer containing fertilizer or pesticide
- A submerged sprinkler or irrigation outlet
- Swimming pools

How does Backflow Occur?

Backflow can occur due to a main break, pump failure, water drawdown from fire-fighting or hydrant flushing, or any usage where external pressure exceeds that of the distribution system. These incidents are more common than you may think, and are usually unexpected.



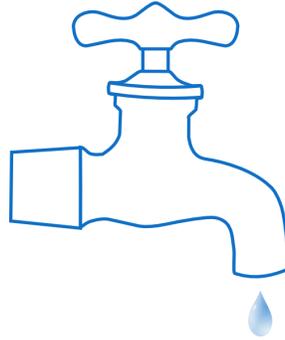
Laundry Tub with Threaded Spigot

Hose Bibb Vacuum Breaker required



Hose Bibb Vacuum Breaker

**Do your part to
Keep Your
Drinking
Water
Safe**



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this report, contact:
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