# **A Few Definitions**

# **Important Information**

# Water Contaminants

## Contaminants That May be Present in Source

Water Include:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- B) 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.
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- (D) 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.
- (E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public 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.

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 the 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.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline.

# 2021 Annual Drinking Water

# Quality Report

# Hurlburt Field Florida



We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call any of the numbers listed below.

> Hurlburt Field Public Affairs: (850) 884-7464 Hurlburt Field Housing Office: (850) 884-7505 Hurlburt Field Bioenvironmental Engineering: (850) 881-1822 EPA Safe Drinking Water Hotline: 1-800-426-4791 Centers for Disease Control & Prevention: 1-800-232-4636

In the table on the inside fold, you may find unfamiliar terms and abbreviations. To help you better understand these terms, we've provided the following definitions:

<u>Action Level (AL):</u> The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

<u>Maximum Contaminant Level Goal (MCLG)</u>: 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.

<u>Maximum Contaminant Level (MCL)</u>: 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.

<u>Maximum Residual Disinfectant Level (MRDL)</u>: 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.

<u>Maximum Residual Disinfectant Level Goal (MRDLG)</u>: 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.

*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 Detected:* Results in the Level Detected column for radioactive contaminants, inorganic contaminants, synthetic organic contaminants including pesticides and herbicides, and volatile organic contaminants are the highest average at any of the sampling points or the highest detected level at any sampling point, depending on the sampling frequency.

<u>Not Detected (ND)</u>: Means not detected & indicates that the substance was not found by laboratory analysis.

<u>Parts per billion (ppb) or Micrograms per liter (ug/l)</u>: One part by weight of analyte to 1 billion parts by weight of the water sample.

**Parts per million (ppm) or Milligrams per liter (mg/l):** One part by weight of analyte to 1 million parts by weight of the water sample.

**<u>Picocurie per liter (pCi/L)</u>**: Measure of the radioactivity in water.

<u>*Treatment Technique (TT):*</u> A required process intended to reduce the level of a contaminant in drinking water.

#### Annual Drinking Water Quality Report

The Hurlburt Field Bioenvironmental Engineering Office routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Except where indicated (B) otherwise, this report is based on monitoring results for the period of 1 January 2021 to 31 December 2021. Data obtained before 1 January 2021, and presented in this report, is from the most recent testing done in accordance with state laws, rules, and regulations.

In 2021, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are 14 potential sources of contamination identified for this system with low to moderate susceptibility levels. The assessment results are available on the FDEP Source Water Assessment, and Protection Program website at https://fldep.dep.state.fl.us/swapp/.

#### **EPA's Guide on Total Coliforms**

\*Coliforms are bacteria that are naturally present in the environment and are used as an indicator that another potentially harmful waterborne pathogen may be present, or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments. During the past year, we were required to conduct one Level 1 assessment due to a Total Coliform positive result on August 17, 2021 and a failure to take every repeat sample. One Level 1 assessment was completed. In addition, we were required to take one corrective action and we completed all of these actions. Miscommunication with our contracted lab led to the Level 1 Assessment. We were not effectively notified of the positive Total Coliform result on August 17, 2021, resulting in the required number of repeat samples not being conducted in the mandatory time frame. All repeat samples were negative for total coliforms.

# 2021 Hurlburt Field Water Quality Table

### Stage 2 Disinfectants and Disinfection By-Products

Contaminant & Unit of Measurement	Dates of Sampling	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Sources of Contamination
Chlorine (ppm) (Stage 1)	Jan- Dec 21	Ν	0.89	0.7 - 1.03	MRDLG = 4	MRDL = 4	Water additive used to control microbes.
Haloacetic Acids (HAA5) (ppb)	Aug 21	Ν	6.6	ND - 6.6	N/A	60	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM) (ppb)	Aug 21	Ν	55.9	35.8 - 55.9	N/A	80	By-product of drinking water disinfection.

## Inorganic Contaminants

Contaminant & Unit of Measurement	Dates of Sampling	MCL or MRDL Violation Y/N		Range of Results	MCLG	MCL	Likely Sources of Contamination
Barium (ppm)	Apr 20	Ν	0.34	0.11 -	2	2	Discharge of drilling wastes; discharge from metal refineries; of natural deposits.
Fluoride (ppm)	July 20	Ν	1.22	1.15 –	4	4	Erosion of natural deposits; discharge from fertilizer & aluminum factories. Water additive which promotes strong teeth when at the the optimum level of 0.7 ppm.
Sodium (ppm)	Feb 20	Ν	130	99 - 130	NA	160	Salt water intrusion, leaching from soil.

## Lead and Copper (Tap Water)

Contaminant & Unit of Measurement	Dates of Sampling	AL Exceed	90th Percentile Results	No. of Sampling Sites Exceeding the AL	MCLG	AL	Likely Sources of Contamination
Copper (tap water) (ppm)	Feb 21	Ν	0.3	1 out of 60	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	Feb 21	Ν	3.5	2 out of 60	0	15	Corrosion of household plumbing systems; erosion of natural deposits
Copper (tap water) (ppm)	Aug 21	Ν	0.2	0 out of 60	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	Aug 21	Ν	6.3	1 out of 60	0	15	Corrosion of household plumbing systems; erosion of natural deposits

### Microbiological Contaminants

Contaminant & Unit of Measurement	Dates of Sampling	TT Violation	Result	MCLG	TT	Likely Sources of Contamination
Total Coliform Bacteria*	Aug 21	Y	1 Positive	N/A	TT	Naturally present in the environment

### This Report is for You!

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.



Our water source is acquired from five wells. These wells draw from the Floridian Aquifer. Due to the excellent quality of our aquifer, the only treatment process required is chlorine disinfection to meet Florida Administrative Code standards prior to public water system distribution.

If you have any questions concerning your water or this report, please contact Bioenvironmental Engineering Environmental Program Manager at 881-1822 or Civil Engineering Utilities, Mr. Mark Bazylak at 884-4602. We encourage our valued customers to be informed about your water quality.

We at Hurlburt Field work around the clock to provide top quality water to our customers. We ask for your support in protecting and conserving our water resources. They are critical to the continued well-being of our community, our way of life, and our children's future.

JOCELYN J. SCHERMERHORN, Colonel, USAF Commander, 1st Special Operations Wing