2017 Annual Drinking Water Quality Report City of Denmark PWS ID # 0510002



We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is a snapshot of last year's water quality. Included are details about from where your water comes, what it contains, and how it compares to standards set by regulatory agencies. 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 and to providing you with this information, because informed customers are our best allies. If you have any questions about this report or concerning your water, please contact City Hall at (803) 793-3734. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled city council meetings held on the third Monday of each month. These meetings are typically held at the Brooker Center, and begin at 7:00 PM. The public is encouraged to attend and participate.

What EPA Wants You to Know

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 Environmental Protection Agency's (EPAs) Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 (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 or from human activity. Contaminants that may be present in source water include <u>microbial contaminants</u>, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; <u>inorganic contaminants</u>, 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; <u>pesticides and herbicides</u>, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; <u>organic chemical contaminants</u>, 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; and <u>radioactive contaminants</u>, 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 the same protection for public health.



When You Turn on Your Tap, Consider the Source

During the year of 2017, the City of Denmark received its water from groundwater wells. During 2017, the City of Denmark operated four wells. The Voorhees Well and the Cox Mill Well have a total of 16 hours pumping capacity of 768,000 gallons. The Acacia Street Well and the W. Voorhees Road Well have a total of 16 hours pumping capacity of 615,000 gallons.

Source Water Assessment Program (SWAP)

Our Source Water Assessment Plan is available for your review at <u>www.scdhec.gov/HomeAndEnvironment/Water/SourceWaterProtection/</u> If you do not have internet access, please contact Cedric Hudson at 803-793-3734 to make arrangements to review this document.

What's in the Water?

Monitoring Period of January 1-December 31, 2017 Regulated Contaminants Detected

Definitions:

Action Level (AL) – 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. AGLs allow for a margin of safety.

Lead and Copper

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2017	1.3	1.3	0.035000000	0	ppm	Ν	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems
Lead	2017	0	15	0	0	ppb	N	Corrosion of household plumbing systems; erosion of natural deposits

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Trihalomethanes (TTHM)	2017	2.000000000	0E-9- 4.600000000	No goal for the total	80	ppb	Ν	By-product of drinking water disinfection

Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate (measured as Nitrogen)	2017	.880000000	0E-9 - 0.880000000	10	10	ppm	Ν	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

Water Quality Data Table of Detected Contaminants

We routinely monitor for over 150 contaminants in your drinking water according to Federal and State laws. The table below lists all the drinking water contaminants that we <u>detected</u> in the last round of sampling for the particular contaminant group. The presence of contaminants does <u>not</u> necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2017.** The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

As you see by the table above, our system had no violations for the year ending December 31, 2017. The City of Denmark is proud that your water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water is safe at these levels.

Important Drinking Water Definitions:

Not-Applicable (N/A) – Information not applicable/not required for that particular water system or for that particular rule.

Non-Detects (ND) - Laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used.

Parts per million (ppm) or Milligrams per liter (mg/L) - One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/L) - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

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

Maximum Contaminant Level (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 Contaminant Level Goal (MCLG) - 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.

Maximum Residual Disinfectant Level Goal (MRDL) – 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 of microbial contaminates.

Maximum Residual disinfectant Level (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.

Extra Note: MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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. The City of Denmark 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 the water for drinking or cooking. If you are concerned about lead in drinking 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 at: http://www.epa.gov/safewater/lead