

Cedar Key Water & Sewer District

P.O. Box 309
Cedar Key, FL 32625
Phone: 352-543-5285

June 28, 2018

Dear Customers:

Enclosed is the report relating to disinfection byproducts (DBPs) for the 2nd quarter of 2018, as well as your annual Consumer Confidence Report. The quarterly report for DBPs shows continued improvement in our efforts to come into compliance with regard to DBPs. The District remains in compliance for one of the two DBPs, HAA5, and the locational running average for the other, TTHM, is steady at one location and substantially lower at the other. The Annual Consumer Confidence Report shows the high DBP numbers for 2017 that led to the requirement that we send quarterly DBP notices, and alerted us to the need to make improvements in our efforts to reduce DBP formation.

The District is continuing to test and implement treatment options at the water plant. The following efforts designed to lower DBP formation were recently completed:

- The Miex treatment system at the water plant is designed to remove organic carbon from our well water and thereby reduce DBPs. The District hired a consultant from the Miex company who spent two days here helping us make sure the system is working as effectively as possible. We are now getting better results from the system.
- The sand filters at the water treatment plant were given a complete chemical cleaning to remove any organic carbon stuck to the sand, gravel and underdrains. This new cleaning process appears to have worked very well.
- A consultant chemist did some testing at the plant and recommended that two of our treatment chemicals be replaced by newer ones, and those new chemicals have resulted in substantial improvements in the treatment process.
- A new filtration media called "AP Oxidation Media," which has been shown to be effective in removing organics from raw water at other water systems dealing with high DBPs, is being tested to determine how well it might work on our water.

These measures are showing very positive results. The results for the first quarter of 2018 show both HAA5 and TTHM below maximum levels at both sampling locations. We did additional testing for TTHMs at both locations early this month, and got the following results well below the maximum of 80 parts per billion: Gulf and Hodges: 54.63; Hodgson Avenue: 56.42. Please be assured that we are taking this very seriously, and will continue to work diligently to maintain compliance with regard to DBPs.


John McPherson
General Manager


James McCain
Plant Superintendent

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

CEDAR KEY WTP Disinfection Byproducts Monitoring Public Notice

What happened?

Our water system did not meet the requirements of a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we are doing to correct this situation.

We routinely monitor for the presence of drinking water contaminants. Testing results we received from samples taken April 24, 2018, when averaged with quarterly results from the past year, show that our system exceeds the standards, or maximum contaminant levels (MCL), for S2 DBPs, which includes Total Trihalomethanes (TTHMs). The standard for TTHMs is 80 micrograms per liter ($\mu\text{g/L}$). Compliance is based on the locational running averages (LRAA), which is the average of all quarterly results from the past year.

Contaminant and Date	Hodgson Ave. and Jernigan Ave.	Gulf Blvd & Hodges Avenue
TTHMs LRAA following April 24, 2018, results	102.36	97.44

What should I do?

Some people who drink water containing TTHMs in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer. Any customers who are concerned about their exposure to DBPs may choose alternative sources of water for ingestion.

What does this mean?

This is not an immediate risk. If it had been, you would have been notified immediately.

What is being done?

We have taken several steps to reduce DBPs over the long term including the following: (1) The Miex treatment system at the water plant, which is designed to remove organic carbon from our well water and thereby reduce DBPs, has been refurbished, and updated operating procedures have been initiated. (2) The sand filters at the water treatment plant were given a complete chemical cleaning to remove any organics stuck to the sand, gravel and underdrains. (3) Upon the advice of a consultant chemist, two of our treatment chemicals have been replaced by newer ones, and those new chemicals have resulted in substantial improvements in the treatment process. (4) A new filtration media called "AP Oxidation Media," which has been shown to be effective in removing organics from raw water at other water systems dealing with high DBPs, is being tested to determine how well it might work on our water.

For more information, please contact John McPherson, General Manager, at 352-543-5285 or 352-317-7431.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by CEDAR KEY WTP
State Public Water System ID#: 2380178
Date Distributed: June 28, 2018

2017 Annual Drinking Water Quality Report

Cedar Key Water and Sewer District

PWSID#: 2380178

We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality 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 ground water from three wells. The wells draw from the Surficial aquifer. The water is treated using a magnetic ionic exchange process (MIEX) and also includes lime softening, filtration and chlorination.

In 2017 the Department of Environmental Protection performed a Source Water Assessment on our system and search of the data sources indicated no potential sources of contamination near our wells. The assessment results are available on the DEP Source Water Assessment and Protection Program website at <http://www.dep.state.fl.us/swapp>.

This report shows our water quality results and what they mean.

If you have any questions about this report or concerning your water utility, please contact John McPherson at 352-543-5285. We encourage our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second Monday of each month.

Cedar Key Water and Sewer District routinely monitors for contaminants in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2017. Data obtained before January 1, 2017, and presented in the report are from the most recent testing done in accordance with the laws, rules, and regulations.

As authorized and approved by EPA, the State has reduced the monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of our results [e.g. lead and copper], though representative, is more than one year old.

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

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 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 a margin of safety.

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.

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.

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

“ND” means not detected and indicates that the substance was not found by laboratory analysis.

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

Parts per billion (ppb) or Micrograms per liter (µg/l) – one part by weight of analyte to 1 billion parts by weight of the water sample.

Picocurie per liter (pCi/L): measures the radioactivity in water.

* Results in the Level Detected column for inorganic contaminants are the highest detected level at any sampling point.

Radioactive Contaminants							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected*	Range of Results	MCLG	MCL	Likely Source of Contamination
Alpha emitters (pCi/L)	7/2012	N	3.4	N/A	0	15	Erosion from natural deposits
Combined Radium (pCi/L)	7/2012	N	1.0	N/A	0	5	Erosion from natural deposits

Inorganic Contaminants							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected*	Range of Results	MCLG	MCL	Likely Source of Contamination
Antimony (ppb)	6/2015	N	0.0003	N/A	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Barium (ppm)	6/2015	N	0.0049	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Sodium (ppm)	6/2015	N	16	N/A	N/A	160	Salt water intrusion, leaching from soil

Stage 1 Disinfectants and Disinfection By-Products For chlorine, the level detected is the highest running annual average (RAA), computed quarterly, of monthly average of all samples collected.							
Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine	Monthly 2017	N	1.2	0.63 – 2.4	MRDLG = 4	MRDL = 4	Water additive used to control microbes

Stage 2 Disinfectants and Disinfection By-Products The level detected is the <u>highest</u> running annual average* (LRAA), computed quarterly, of monthly average of all samples collected.							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation (Y/N)	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
For haloacetic acids or TTHM, the level detected is the average of all samples taken during the year if the system monitors less frequently than quarterly. Range of Results is the range of individual sample results (lowest to highest) for all monitoring locations.							
Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
TTHM [Total trihalomethanes] (ppb)	Quarterly 2017	Y	176.40	59.49 - 288.2	NA	MCL = 80	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb) Site 1	Quarterly 2017	Y	169.69	88.66 - 277.51	NA	MCL = 80	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb) Site 2	Quarterly 2017	Y	176.4	59.49 - 288.2	NA	MCL = 80	By-product of drinking water disinfection
Haloacetic Acids (five) (HAA5) (ppb)	Quarterly 2017	Y	149.91	31.75 - 282.6	NA	MCL = 60	By-product of drinking water disinfection
Haloacetic Acids (five) (HAA5) (ppb) Site 1	Quarterly 2017	Y	149.91	31.75 - 282.6	NA	MCL = 60	By-product of drinking water disinfection
Haloacetic Acids (five) (HAA5) (ppb) Site 2	Quarterly 2017	Y	149.59	46.48 - 281.52	NA	MCL = 60	By-product of drinking water disinfection

TTHM Monitoring Results (ppb)	1 st quarter 2017	2 nd quarter 2017	3 rd quarter 2017	4 th quarter 2017
Site 1 Quarterly Results	277.51	75.46	140.67	88.66
Site 1 – LRAA*	169.69	146.14	158.14	102.17
Site 2 Quarterly Results	288.2	59.49	161.49	75.69
Site 2 – LRAA*	176.4	147.17	163.61	146.22

HAA5 Monitoring Results (ppb)	1 st quarter 2017	2 nd quarter 2017	3 rd quarter 2017	4 th quarter 2017
Site 1 Quarterly Results	282.6	31.3	64.89	31.75
Site 1 – LRAA*	149.91	110.37	126.26	102.64
Site 2 Quarterly Results	281.52	43.05	78.43	46.48
Site 2 – LRAA*	149.59	114.08	134.33	112.37

Lead and Copper (Tap Water)							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	AL Violation Y/N	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	10/2015	N	0.15	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	10/2015	N	1.1	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

SECONDARY CONTAMINANTS TABLE

Secondary Contaminants							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr)	MCL Violation Y/N	Highest Result	Range of Results	MCLG	MCL	Likely Source of Contamination
Aluminum (ppm)	6/2015	Y	0.27	N/A	N/A	0.2	Natural occurrence from soil leaching

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. Our water system was in violation of federal and state water quality standards for ALUMINUM from 6/2015 through 3/2016. The levels of ALUMINUM are shown in the Test Results Table. Aluminum was resampled on 3/29/2016, and was not detected.

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. Our water system was in violation of federal and state water quality standards for Haloacetic acids (five)(HAA5) and Total Trihalomethanes in 2017. The levels of these contaminants are shown in the Test Results Table. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer. Our system has been working to correct this violation by installing improvements to the drinking water treatment process at our facility.

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. Cedar Key Water and Sewer District 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 <http://www.epa.gov/safewater/lead>.

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:

- (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 stormwater 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 stormwater 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 stormwater runoff, and septic systems.*
- (E) *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, 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

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).

We at Cedar Key Water and Sewer District would like you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to insuring 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.