

Okeechobee Utility Authority
2017 Annual Drinking Water Quality Report
The Water We Drink
Surface Water Treatment Plant

We're 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 from **Lake Okeechobee** for the Surface Water Treatment Plant. After treatment, the water is pumped from the plant into the water distribution system. The Surface Water Plant treats water from Lake Okeechobee by coagulation, filtration, ozonation and chloramines for disinfection. In December 2016, we stopped producing water at the Ground Water Treatment Plant. All of our water now comes from the Surface Water Treatment Plant and the Ground Water Plant is used as a storage and repump station.

Este documento contiene informacion importante sobre su agua potable. Si desea un copia en Espanol, llame al (863) 763-9460.

This report shows our water quality and what it means.

If you have any questions about this report or concerning your water utility, please contact: **Kevin Rogers (863) 763-3239**. 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. The OUA Board meets on the second Tuesday of each month at 8:30 AM at 100 SW 5th Avenue.

Okeechobee Utility Authority 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 1st to December 31st 2017. As authorized and approved by EPA, the State has reduced 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 data [e.g., for organic contaminants], though representative, is more than one year old.

As water travels over the land or underground it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by contacting the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791 or on-line at their web site WWW.epa.gov/safewater/.

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 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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that 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.

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).

In 2016, Florida's DEP conducted Source Water Assessments (SWA) of both the Surface Water and Ground Water plants. These assessments were conducted to provide information about any potential sources of contamination in the vicinity of your water supply. The SWA for the groundwater plant found one potential source of contamination, with a low susceptibility level. The surface water system intake is at high risk from numerous potential sources of contamination present within the assessment area of the lake. These sources include petroleum storage tanks, industrial and domestic wastewater facilities, a CERCLA site, a Superfund site, and injection wells. The SWA reports for this system are available at the DEP SWAPP web site: www.dep.state.fl.us/swapp

In the data table you will find many terms you might not be familiar with. To help you better understand these terms we've provided the following key to these terms' abbreviations and definitions:

TERM Appearing in TABLE		DEFINITION
Action Level	AL	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow
Not Applicable	N/A	Does not apply
Not Detected	ND	Laboratory analysis indicates that the constituent was not present
Parts per million	ppm	Or Milligrams per liter (mg/l) – one part by weight of analyte to one 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 one billion parts by weight of the water sample.
Picocuries per liter	pCi/L	Picocuries per liter is a measure of the radioactivity in water
Treatment Technique	TT	A required process intended to reduce the level of a contaminant in drinking water
Maximum Contaminant Level	MCL	The “Maximum Allowed” is 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 “Goal” is 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	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	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.
Locational Running Annual Average	LRAA	The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

TEST RESULTS TABLE

Note: The result in the "lowest monthly percentage" column is the lowest monthly percentage of samples meeting the turbidity limits reported in the Monthly Operating Report.

Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL Violation Y/N	The Highest Single Measurement	The Lowest Monthly Percentage of Samples Meeting Regulatory Limits	MCLG	MCL	Likely Source of Contamination
Turbidity (NTU)	1/1/2017-12/31/2017	N	0.48	99.4%	N/A	TT	Soil runoff

Turbidity is checked to determine the clarity of the filter effluent, to reduce interference with disinfection, and to reduce the presence of disease causing organisms.

** Results in the Level Detected column for radiological 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.

Radiological Contaminants

Contaminant and Unit of Measurement	Dates of sampling	MCL Violation Y/N	Level Detected**	Range of Results	MCLG	MCL	Likely Source of Contamination
Gross Alpha emitters (pCi/l)	2017	N	2.5	2.5	0	15	Erosion of natural deposits
Combined uranium (pCi/L)	2017	N	ND	ND	20	20	Erosion of natural deposits
Radium-226 (pCi/L)	2017	N	0.83	.83	5	5	Erosion of natural deposits

Inorganic Contaminants

Arsenic (ppb)	2017	N	ND	ND	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronic production waste.
Barium (ppm)	2017	N	0.009	0.009	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	2017	N	ND	ND	NA	100	Discharges from steel and pulp mills and erosion of natural deposits
Cyanide (ppb)	2017	N	ND	ND	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride (ppm)	2017	N	ND	ND	N/A	4.0	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nickel (ppb)	2017	N	ND	ND	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil

Contaminant and Unit of Measurement	Dates of sampling	MCL Violation Y/N	Level Detected**	Range of Results	MCLG	MCL	Likely Source of Contamination
Nitrate (as Nitrogen) (ppm)	2017 quarterly at SWTP	N	0.296	.14-.60	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Nitrite (as Nitrogen) (ppm)	2017 quarterly at SWTP	N	0.0	ND	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	2017	N	ND	ND	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	2017	N	48.8	48.8	N/A	160	Salt water intrusion, leaching from soil

Synthetic Organic Contaminants including Pesticides and Herbicides

Dalapon (ppb)	5/17,10-17	N	ND	N/A	200	200	Runoff from herbicide used on rights of way
----------------------	------------	---	----	-----	-----	-----	---

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement	Dates of sampling	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)	2017	N	0.48/.21	0	1.3	1.3	Corrosion of household plumbing systems
Lead (tap water) (ppb)	2017	N	ND/1.9	0	0	15	Corrosion of household plumbing systems

Stage 1 Disinfectants and Disinfection By-Products

For bromate, chloramines, or chlorine, the level detected is the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. The range of results is the range of results of all the individual samples collected during the past year.

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MRDLG	MRDL	Likely Source of Contamination
Chloramines (ppm)	Monthly 1/17-12/17	N	1.8	0.6-3.5	N/A	4.0	Water additive used to control microbes
Bromate (ppb)	Monthly 1/17-12/17	N	2.3	ND-14.1	N/A	10	By-product of ozone in drinking water disinfection

Stage 2 Disinfectants and Disinfection By-Products

For haloacetic acids and trihalomethanes, the highest locational running annual average (LRAA) is the level detected and the range of individual sample results is the range of results.

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
Haloacetic Acids (five) (HAA5) (ppb)	3/17, 6/17, 9/17,12/17	N	32.09	7.10-71.70	N/A	60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	3/17, 6/17, 9/17,12/17	N	41.2	14.4-74.1	N/A	80	By-product of drinking water disinfection

Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	TT Violation Y/N	Lowest running annual average computed quarterly of monthly removal ratio	Range of Monthly Removal Ratios	MCLG	MCL	Likely Source of Contamination
Total organic carbon (ppm)	Monthly 1/17-12/17 (surface water plant)	N	1.13-1.45	1.45-1.80	N/A	TT	Naturally present in the environment

The monthly TOC removal ratio is the ratio between the actual TOC removal and the TOC rule removal requirements.

Microbiological Contaminants

Contaminant	Dates of sampling (mo/yr)	MCL Violation Y/N	Total Number of Positive Samples for the Year	MCLG	MCL	Likely source of contamination
					Routine and repeat samples are total coliform-positive and either is <i>E. coli</i> -positive	Human and animal fecal waste

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. Okeechobee Utility Authority 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>

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.

We at Okeechobee Utility Authority would like for 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. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.