

# Annual Drinking Water Quality Report

Talquin Electric Cooperative, Inc. is pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is, and always has been, to provide you a safe and dependable supply of drinking water. Our groundwater source is deep wells which draw from the Floridan Aquifer System. The Floridan Aquifer is the source of drinking water for the majority of the water systems in Florida. Talquin treats the water in your system with chlorine for disinfection purposes and polyphosphate to control iron and manganese.

All Talquin Electric's water systems are routinely monitored for contaminants according to federal and state laws. This table shows the results of our monitoring for the period January 1 to December 31, 2016. 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, though representative, may be more than one year old.

The source of drinking water (both tap water and bottled water) includes 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. We want our valued customers to be informed about their water utility. If you have any questions about this report or concerning your water utility, contact John Hallas, Talquin Electric's Manager of Water Services, at 850-562-2115. There are no regularly scheduled public meetings related to water services; however, if you wish to meet with a Talquin Electric representative, please call Talquin Electric's water services at the number above to schedule an appointment.



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**TALQUIN**  
ELECTRIC COOPERATIVE, INC.  
WATER & WASTEWATER, INC.

**WAKULLA COUNTY**

**2016 WATER QUALITY REPORT**

# WAKULLA COUNTY WATER SYSTEM TEST RESULTS TABLE

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
<b>Radioactive Contaminants</b>							
Radium 226 or combined radium (pCi/l)	Jun 2009-Sep 2014	N	1.8	0.4-1.8	0	5	Erosion of natural deposits

<b>Inorganic Contaminants</b>							
Antimony (ppb)	Sep-Oct 2014	N	0.4	ND-0.4	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	Sep-Oct 2014	N	0.9	0.7-0.9	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	Sep-Oct 2014	N	0.013	0.0083-0.013	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cadmium (ppb)	Sep-Oct 2014	N	0.2	ND-0.2	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium (ppb)	Sep-Oct 2014	N	0.4	ND-0.4	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride (ppm)	Sep-Oct 2014	N	0.16	ND-0.16	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at the optimum level 0.7 ppm
Nickel (ppb)	Sep-Oct 2014	N	0.3	ND-0.3	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil
Selenium (ppb)	Sep-Oct 2014	N	3.8	1.5-3.8	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	Sep-Oct 2014	N	20	4.6-20	N/A	160	Salt water intrusion, leaching from soil
Thallium (ppb)	Sep-Oct 2014	N	1	ND-1	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

<b>Lead and Copper (Tap Water)</b>							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	AL Exceeded Y/N	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely source of contamination
Copper (tap water) (ppm)	June-Sept. 2014	N	0.218	0 of 20	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	June-Sept. 2014	N	7	0 of 20	0	15	Corrosion of household plumbing systems, erosion of natural deposits

<b>Stage 2 Disinfectants and Disinfection By-Products</b>							
Disinfectant or Contamination 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 (ppm) (Stage 1)	Jan.-Dec. 2016	N	1.5	1.2-1.7	MRDLG=4	MRDL=4.0	Water additive used to control microbes
Haloacetic Acids (five)(HAA5)(ppb)	Jan.-Dec. 2016	N	29.19 (avg)	9.65-139.52	N/A	MCL=60	By-product of drinking water disinfection
TTHM [total trihalomethanes](ppb)	Jan.-Dec. 2016	Y	90.45(avg)	15.46-208.84	N/A	MCL=80	By-product of drinking water disinfection

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
<b>Secondary Contaminants</b>							
Manganese (ppm)	Sep-Oct 2014	No*	0.088	0.0049-0.088	N/A	0.05	Natural occurrence from soil leaching
Odor (threshold odor number)	Sep-Oct 2014	Yes	8	ND-8	N/A	3	Natural occurrence from soil leaching

\*Talquin Electric uses polyphosphate to treat Manganese. Manganese plus Iron were below the allowable level of 1.0 ppm.

<p>In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms, we have provided the following definitions:</p> <p>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.</p> <p>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.</p> <p>Maximum residual disinfectant level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.</p> <p>Maximum residual disinfectant level goal or MRDLG: The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.</p>	<p>Non-detect or "ND" means not detected and indicates that the substance was not found by laboratory analysis.</p> <p>Non applicable (n/a). Does not apply.</p> <p>Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.</p> <p>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.</p> <p>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.</p> <p>Picocurie per liter (pCi/l) - measure of the radioactivity in water.</p> <p>Many of our systems have a natural occurring trace of fluoride in the source water. No fluoride is added.</p> <p>The Wakulla County Water System is provided water from 3 wells.</p>
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The Wakulla County Water System had MCL violations for total trihalomethanes (TTHMs) in 2016. 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. Talquin has begun an improvement project to treat the raw water at Talquin Wakulla County well sites which will improve overall water quality. We anticipate completing this project by the second quarter of 2017. Talquin has increased flushing within the water system in an effort to reduce water age and improve water quality. Mixers have been installed within the elevated storage tanks to further improve water quality and reduce TTHM formation. Treatment vessels have been ordered and, once installed, will treat the raw ground water and further improve water quality.

The State of Florida Department of Environmental Protection (FDEP) sets drinking water standard for secondary contaminants and has determined that 3 (threshold odor number) is an aesthetic concern at certain levels of exposure. Odor was sampled in September 2014 and was found in higher levels than are allowed by the State (an MCL violation). Odor, as a secondary drinking water contaminant, does not pose a health risk. We will continue to sample as required by rule and work with the Department as needed.

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 agricultural, 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.

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. Talquin Electric 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 Water Hotline or <http://www.epa.gov/safewater/lead>.

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. 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.

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 for a lifetime to have a one-in-a-million chance of having the described health effect.

**Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 at 1-800-426-4791.**

In 2016 the Department of Environmental Protection performed a Source Water Assessment on our system and a search of the data sources indicated no potential sources of contamination near our wells. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at [www.dep.state.fl.us/swapp](http://www.dep.state.fl.us/swapp) or they may be obtained from John Hallas at (850) 562-2115.