

2013 Drinking Water  
**Quality Report**



We are pleased to report that our drinking water meets all federal and state requirements, and our sampling and chemical analyses are in full compliance with safe drinking water standards.

We're very happy 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 to you a safe and dependable supply of drinking water.



## Where Does My Water Come From?

The sources of drinking water for both tap water and bottled water throughout our country 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. It also can pick up substances resulting from the presence of animals or from human activity.

## Contaminants that may be present in source water include:

- Microbial contaminants such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- 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.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

All 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 (EPA) Safe Drinking Water Hotline at (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 persons, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC (Centers for Disease Control) 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.

ECUA has 31 wells distributed throughout its service area that pump water from the Sand-and-Gravel Aquifer. In general, ECUA customers receive water from the wells (two to five) located closest to their residence. Each well is considered a separate treatment plant, where water quality parameters are adjusted to maximize operational efficiencies and to comply with regulatory standards.

Granular Activated Carbon (GAC) filters are installed on eleven (11) wells for iron or organic contamination removal. Calcium Hydroxide (lime) is added for pH adjustment; Phosphoric Acid is added for corrosion control in the distribution system; and Chlorine is added for disinfection. Fluoride is added at select wells, as a source of fluoride treatment.

The Sand-and-Gravel Aquifer is a high-quality, prolific source of water for our community. Because it does not have a confining layer above it, virtually everything that falls on the ground has the

potential to affect the quality of our water supply.

ECUA is well aware of this threat to the groundwater, and over the years has worked with Escambia County and the City of Pensacola in strengthening and enforcing their respective Wellhead Protection Ordinances.

ECUA monitors your drinking water for total coliform bacteria on a regular basis. Total coliform bacteria are generally not harmful themselves, are naturally present in the environment, and are used as an indicator that other bacteria may be present. This is a process that we take very seriously and implement carefully each month.

In order to ensure the safety of tap water, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA (Food & Drug Administration) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

ECUA routinely monitors your drinking water according to Federal and State laws, rules and regulations,

## Table of System-Wide Averages

Averaged Concentration shown in Table is the averaged sample results for ECUA's entire water system.

Volatile Organic Contaminants (VOC)	MCL	Averaged Concentration Entire ECUA Water System
Tetrachloroethylene (ppb)	3	0.10
1,1-Dichloroethylene (ppb)	7	0.008
Trichloroethylene (ppb)	3	0.008
Chlorobenzene (ppb)	100	0.015
Styrene (ppb)	100	0.033

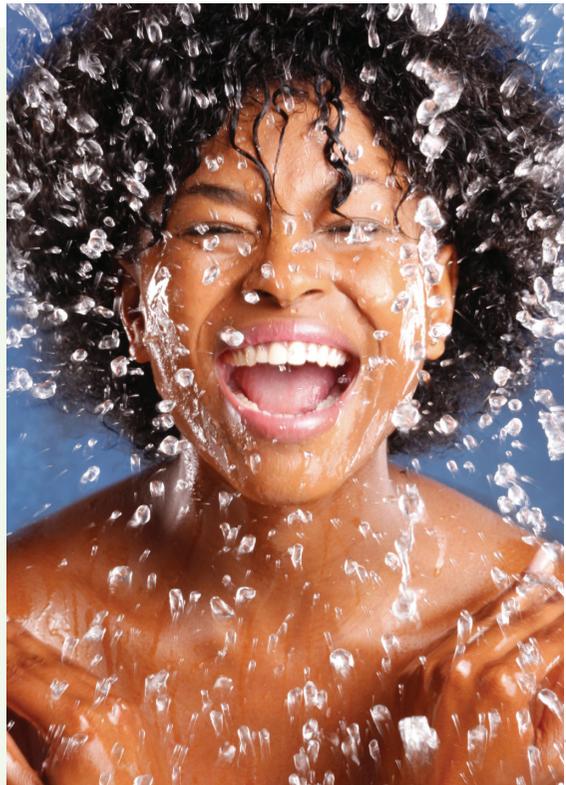
Inorganic Contaminants	MCL	Averaged Concentration Entire ECUA Water System
Antimony (ppb)	6	0.015*
Barium (ppm)	2	0.036*
Cyanide (ppb)	200	1.13*
Fluoride (ppm)	4	0.25*
Mercury (ppb)	2	0.033*
Nitrate (as Nitrogen) (ppm)	10	1.5
Sodium (ppm)	160	5.1*
Selenium (ppb)	50	0.012*

\*Represents 2011 sample data due to sampling schedule. Sampling is every three years.  
MCL = Maximum Contaminant Level

## Lead and Copper

The Lead and Copper results presented were collected and analyzed in 2011. The results reported showed the ECUA Water System to be in full compliance with the Lead and Copper Rule, which requires testing every three years.

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 ECUA is responsible for providing high quality drinking water, but cannot control the variety of materials used in household 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).





generally more frequently than the law prescribes.

The System-Wide Test Results table, included in this report, presents the results of compliance monitoring for the period of January 1 through December 31, 2013. 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, is more than one year old.

## What are Precautionary Boil Water Notices and Why Do We Issue Them?

Occasionally, drinking water distribution systems experience disruptions caused by main breaks or planned maintenance, and require the issuance of a Precautionary Boil Water Notice, (PBWN). The PBWN does not mean that contamination is present, but is merely a precautionary measure put in place until bacteriological sampling confirms that no contamination exists. ECUA makes every effort possible to keep our customers informed as to the quality of our water. The status of all PBWN's can be obtained any time of day by visiting [www.ecua.fl.gov](http://www.ecua.fl.gov), calling the ECUA Alert Line at (850) 476-5110, or ECUA Water SCADA at (850) 969-3343.

If you have any questions about this report or concerning your water utility, please contact the ECUA Laboratory Manager at (850) 969-6689. We encourage our valued customers to be informed about their water utility. ECUA Board meetings are held in the boardroom of the ECUA Administration Building, 9255 Sturdevant St., Pensacola, FL 32514. For a complete schedule of meetings, please contact the Executive Assistant to the Board, Ms. Linda Iversen, at (850) 969-3302, or visit us on-line at [www.ecua.fl.gov](http://www.ecua.fl.gov). The ECUA Water Quality Report for 2014 will be published by July 1, 2015.

## Definitions

We've provided the following definitions to help you better understand certain terms and abbreviations with which you might not be familiar.

### 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 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 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, which if exceeded, triggers treatment or other requirements that a water system must follow.

**Not Detected (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 per million corresponds to one minute in two years or a single penny in \$10,000.

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

### Picocuries per liter (pCi/L):

Picocuries per liter is a measure of the radioactivity in water, a quadrillionth of a curie per liter.



# 2013 Drinking Water Quality System-Wide Test Results Table



MICROBIOLOGICAL CONTAMINANTS							
Contaminant and unit of measurement	Dates of sampling	MCL Violation	Highest Monthly %	MCLG	MCL	Likely source of contamination	
Total coliform bacteria	Jan-Dec 13	No	1%	0	For systems collecting at least 40 samples per month: presence of coliform bacteria in >5% of monthly samples		Naturally present in the environment
Contaminant and unit of measurement	Dates of sampling	MCL Violation	Total Number of Positive Samples for the Year	MCLG	MCL	Likely source of contamination	
Fecal coliform and E.coli in the distribution system (positive samples)	Jan-Dec 13	No	1 (By rule, a repeat sample was taken and was negative, for no MCL violation.)	0	0	Human and animal fecal waste	
RADIOACTIVE CONTAMINANTS (FOR WELL-SPECIFIC DATA, SEE TABLE 1)*							
Contaminant and unit of measurement	Dates of sampling	MCL Violation	Level Detected	Range of Results	MCLG	MCL	Likely source of contamination
Alpha emitters (pCi/l)	Jan 08 & Apr 11	No	6.0	ND - 6.0	0	15	Erosion of natural deposits
Radium 226+228 (pCi/l)	Jan 08 & Apr 11	No	4.4	0.11 - 4.4	0	5	Erosion of natural deposits
INORGANIC CONTAMINANTS (FOR WELL-SPECIFIC DATA, SEE TABLE 2)*							
Antimony (ppb)	Oct 11	No	0.7	ND - 0.7	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Barium (ppm)	Oct 11	No	0.079	0.01 - 0.079	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cyanide (ppb)	Oct 11	No	30	ND - 30	200	200	Discharge from steel/metal factories; discharge from plastic & fertilizer factories
Fluoride (ppm)	Oct 11	No	0.57	ND - 0.57	4	4.0	Erosion of natural deposits; discharge from fertilizer & aluminum factories. Water additive which promotes strong teeth when at optimum level of 0.7ppm
Mercury (ppb)	Oct 11	No	0.2	ND - 0.2	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nitrate (as Nitrogen) (ppm)	Oct 13	No	4.2	0.3 - 4.2	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	Oct 11	No	0.7	ND - 0.7	50	50	Discharge from petroleum & metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	Oct 11	No	9.4	2.6 - 9.4	n/a	160	Saltwater intrusion, leaching from soil
VOLATILE ORGANIC CONTAMINANTS							
1,1-Dichloroethylene (ppb)	Jan-Dec 13	No	0.95 avg.	ND - 0.76	7	7	Discharge from industrial chemical factories
Tetrachloroethylene (ppb)	Jan-Dec 13	No	1.52 avg.	ND - 1.88	0	3	Discharge from factories & dry cleaners
Trichloroethylene (ppb)	Jan-Dec 13	No	1.15 avg.	ND - 0.52	0	3	Discharge from metal degreasing sites and other factories
Chlorobenzene (ppb)	Jan-Dec 13	No	0.15 avg.	ND - 0.6	100	100	Discharge from chemical and agricultural chemical factories
Styrene (ppb)	Jan-Dec 13	No	0.34 avg.	ND - 1.34	100	100	Discharge from rubber & plastic factories, leaching from landfills
STAGE 2 DISINFECTANTS AND DISINFECTION BY-PRODUCTS							
Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling	MCL or MRDL Violation	Level Detected	Range of Results	MCLG MRDLG	MCL or MRDL	Likely source of contamination
Chlorine (ppm)	Jan-Dec 13	No	0.71 avg.	0.62 - 0.84	MRDLG/4	MRDL/4	Water additive used to control microbes
Haloacetic Acids five HAA5 (ppb)	Jan-Dec 13	No	1.57 avg.	ND - 4.23	n/a	MCL/60	By-products of drinking water disinfection
THM (Total trihalomethanes) (ppb)	Jan-Dec 13	No	8.6 avg.	ND - 12.9	n/a	MCL/80	By-products of drinking water disinfection
LEAD AND COPPER (TAP WATER)							
Contaminant and unit of measurement	Dates of sampling	AL Violation Y/N	90th percentile	No. of sites exceeding the AL	MCLG	AL	Likely source of contamination
Copper (tap water) (ppm)	June-Sept 11	No	0.32	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	June-Sept 11	No	1.1	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

In 2013, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on our water. Assessments are conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are 26 potential sources of contamination identified for this system, with a low to moderate susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program (SWAPP) website at [www.dep.state.fl.us/swapp](http://www.dep.state.fl.us/swapp) or they can be obtained by calling the ECUA's Water Quality Division at (850) 969-6689.

\*Tables 1 and 2 are available by contacting the ECUA Lab Manager at (850) 969-6689.